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ABSTRACT

Funding from the Bernard van Leer Foundation was used to conduct this longitudinal study in the Embu District of Kenya to compare the academic performance of children cared for by preschool teachers who had received different levels of training. Participating in the study were children from 18 preschools who were followed into primary school. In some of the preschools the children had been with preschool teachers who had gone through a 2-year training program; the other children had been cared for by preschool teachers who were either untrained or who had participated in short courses or received mentoring. Research instruments and methods included focus group discussions with teachers and parents, interviews, content analyses of various school records, and a personality rating on a subsample of students. The main finding of the study was that children who had been with trained teachers made the transition to primary school more easily than children who had been with "untrained" teachers and had lower early dropout and repetition rates. The academic rating of the primary school had a significant impact on student performance; however, children who had been with trained preschool teachers and then attended a "good" primary school performed better than peers who had been with untrained teachers. There were no sex differences in academic performance. Unexpected findings included high rates of grade repetition, absenteeism, and dropping out at all the schools. (A list of the research instruments used is appended. Contains 12 data tables and 11 references.) (KB)

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ED 462 143

Early Childhood Development: Practice and Reflections

A tracer study of children in Embu District, Kenya

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Bernard van Leer Foundation

About the Bernard van Leer Foundation

The Bernard van Leer Foundation is a private foundation based in The Netherlands. It operates internationally.

The Foundation aims to enhance opportunities for children 0-7 years, growing up in circumstances of social and economic disadvantage, with the objective of developing their potential to the greatest extent possible. The Foundation concentrates on children 0-7 years because research findings have demonstrated that interventions in the early years of childhood are most effective in yielding lasting benefits to children and society.

The Foundation accomplishes its objectives through two interconnected strategies:

- a grantmaking programme in selected countries aimed at developing culturally and contextually appropriate approaches to early childhood care and development; and

- the sharing of knowledge and know-how in the domain of early childhood development that primarily draws on the experiences generated by the projects that the Foundation supports, with the aim of informing and influencing policy and practice.

The Foundation currently supports approximately 150 projects in 40 selected countries world wide, both developing and industrialised. Projects are implemented by project partner organisations that may be governmental or non-governmental. The lessons learned and the knowledge and know-how in the domain of early childhood development that are generated through these projects, are shared through a publications programme.

The Bernard van Leer Foundation was established in 1949. Its income is derived from the bequest of Bernard van Leer, a Dutch industrialist and philanthropist, who lived from 1883 to 1958.

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photo cover: Standard 1 girls in Embu, 1999, *photo: Johnson Mwangi*

Early Childhood Development: Practice and Reflections

Following [illegible]

In the web of cultural transition

A tracer study of children in Embu District, Kenya

[illegible]

November 2001

Following Footsteps:
reports of studies tracing the 'footsteps' of former participants in early childhood programmes

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About Following Footsteps

Following Footsteps are reports of efforts to trace former participants of early childhood projects and programmes. They are studies that follow the progress of the children, their families, the workers, the communities or the organisations five or more years down the line to find out how they are faring. Some of the programmes were originally supported by the Bernard van Leer Foundation, others were not. Some of the studies were commissioned by the Bernard van Leer Foundation, while others were not. Each of the programmes studied is unique, and the methods used for tracing, gathering data and analysing are many and varied. As a whole, the studies will contribute to our understanding of the effects, and effectiveness, of early childhood programmes.

About the Series

Following Footsteps is a sub-series of *Early Childhood Development: Practice and Reflections*. The series as a whole addresses issues of importance to practitioners, policy makers and academics concerned with meeting the educational and developmental needs of disadvantaged children in developing and industrial societies. Contributions to this series are welcomed. They can be drawn from theory or practice. Information about contributing to the series can be obtained from Joanna Bouma, Series Editor, Department of Programme Documentation and Communication at the address given on the back cover.

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A list of all the titles in this series is available from the Bernard van Leer Foundation.

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Margaret Kabiru has a B.Ed and M.A. in Child Psychology. She has been involved in the development of early childhood programmes in Kenya for many years and has much experience in research, training, curriculum development and community capacity building. She is the Director of the Mwana Mwende Child Development Trust.

The Mwana Mwende Child Development Trust is involved in training ECD teachers, building the capacity of parents and communities to provide quality care for children and youth, and undertakes projects aimed at improving the welfare of young children, youth and families. It is an NGO registered in Kenya.

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Foreword

When a study sets out to trace children eight or so years after they left preschool it is inevitable that a host of issues will come up. And to a large extent, this study of preschool children is an examination of the primary school system and all the factors that have impacted the children, their families and their communities during the decade of the 1990s.

The study was carried out in a district of Kenya that is neither among the richest nor the poorest in the country, that is mostly rural with some urban areas, that has land with high agricultural potential and land with low potential, in short: a fairly average district. This report explains how the researchers set out to track children from their preschools through to the classes they were in at primary school in 1998-99. The objective was to study and compare children in 18 primary schools; in nine of these the children had been with preschool teachers who had gone through a two-year training course, while the other nine had been cared for by untrained teachers in preschool.

But studies do not always turn out as intended and in six of the schools the records were not sufficiently adequate for tracking purposes so the sample was cut to 12. It also transpired that the preschool teachers who were presumed 'untrained' had, in fact, participated in short courses and in preschool teacher panels, and they had been mentored by teachers who had been trained through what the authors call 'the multiplier effect'.

Although clearly there were distinctions between the two sets of teachers in their knowledge, skills and methods, the objective of determining whether the teachers' training status made a difference to the later performance of the children they had looked after between the ages of 4 and 6 years became somewhat problematic. And indeed, the research found very few differences that were significant, the main one being that children who had been with trained teachers made the transition to Standard 1 of primary school more easily than the children who had been with untrained teachers. It was also found that children who had been with trained preschool teachers and who then attended a 'good' primary school performed better than their peers who had been with untrained teachers.

The most interesting aspects of this report are the unexpected – or unintended – findings. Such as the wastage in the system because of the high rates in all schools of repetition, of absenteeism and of dropouts, especially because very few of the schools were aware of these until alerted by the research team. Through interviews, discussions and checking of records, it became apparent that some schools had a good academic

photo: *Rien van Gendt*

record while others had a poor academic record. What was remarkable was the degree of unanimity on these ratings – education officials, the research team, head teachers, teachers and parents were all in agreement. And what is saddening is the feeling of helplessness, especially on the part of the parents, and inability to do anything to improve the poor schools.

The design of this study leads to an emphasis on academic performance, but we also learn about the other issues in the environment that surround the children and affect their development – too many opportunities for casual labour, for brewing and selling illegal liquor, poor male role models, children living with grandparents or single mothers, peer pressure, poverty, the impact of HIV/AIDS.

So many social changes have taken place and continue to take place in Kenya that, as the authors say, 'most of the parents have been caught up in the web of cultural transition where there are no longer clearly defined values and moral codes of behaviour that should be instilled in children and young people'.

There is much to ponder on in this report, not just about the preschools and the effects of preschool teacher training, not just about the performance of the primary school system, but also about the societies that children are growing up in today and what they have to look forward to in their future lives.

The tracer studies

The early childhood interventions supported by the Bernard van Leer Foundation are action projects that are implemented by locally based partners in 'the field'. Their objectives are concerned with developing and improving the lives of children and their families and communities in the here and now, based on the hypothesis that this will lay the foundations for improved opportunities in the future. These projects have not been conceived or implemented as research studies in which children/families have been randomly assigned to 'treatment' or 'control' groups, and they have not usually been subjected to tests or other research instruments.

Evidence exists on the longer term effects of early childhood interventions, much of it coming from longitudinal studies that have been implemented as research projects in industrialised countries. The outcomes are mixed, although usually fairly positive. Other evidence, mostly anecdotal, is available from early childhood projects such as those supported by the Foundation, and again, this is mostly positive.

After more than 30 years of support for field projects, the Foundation decided in 1998 to commission a number of studies that would trace former participants of projects to find out how they were faring a minimum of five years after they had left the programme. Although evaluation has been a major element in early childhood programmes supported by the Foundation, we have never, until now, gone back to find out how people are doing a number of years later.

Other similar studies are taking place, or have been completed, in countries as widely spread as Jamaica and Botswana, Israel and India, the USA, Ireland, Colombia and Trinidad. Each of the programmes studied is different in its target group, in its context, and in its strategies. This means that the methods used to trace former participants and discover their current status are almost as varied as the original programmes. We are emphasising an anthropological and qualitative approach that uses small samples of former participants and, where possible, matching them with individuals/families that share similar characteristics for the purpose of comparison.

This tracer study from Kenya is the second to be published by the Foundation and is one of many outcomes of a long association between the Foundation and Kenya. The Foundation collaborated with the Ministry of Education from 1971 to develop a preschool teacher training project and, from 1983, it worked with the Kenya Institute of Education to establish district early childhood training centres. One of these, in Embu District, is the subject of this study. It is very likely that the findings are not quite what was anticipated 18 years ago, but there is no doubt that the level of awareness of the importance of the early years is now widespread, and that many people – children, parents, the preschool teachers – have benefited enormously from the work.

It is the Foundation's intention is to share the results of the individual studies with as wide an audience as possible, as well as to undertake an analysis of a group of the studies to see what lessons can be learned in terms of both outcomes and methods.

We anticipate that each study report will be a source of learning and reflection in its own context and country as well as for a wider public. As a whole, we hope that these exercises in following footsteps will contribute to a better understanding of the effects, and effectiveness, of early childhood programmes.

Ruth N Cohen
Bernard van Leer Foundation

Acknowledgements

The co-researchers Margaret Kabiru and Anne Njenga would like to start by sincerely thanking the Bernard van Leer Foundation for providing financial support for this study. In particular, we would like to acknowledge the Executive Director Rien van Gendt for this support. We are also grateful to Paula Nimpuno-Parente, Gerry Salole and Tanja van de Linde for the moral and professional support that they continued to give us during the whole course of this study. We would also like to acknowledge the contributions of Judith Evans and Ruth Cohen whose questions helped to clarify many issues in this study.

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The district team was headed by the District Education Officer (DEO). We would sincerely like to thank the DEO Embu for his total support during the time of this study, and particularly for allowing the research team to work with the District Centre for Early Childhood Education (DICECE) trainers, education field officers and the head teachers as well as the teachers in the preschools and primary schools that were sampled for the purpose of this study.

The team is particularly grateful to Mrs Gladys Mugo, Programme Officer, Embu DICECE, and Mr John Karunyu, Deputy Programme Officer, for their commitment, advice and participation in this study during the planning stages and data collection. It is because of the dedication of these two officers that this study has become a reality. We are also very grateful to both of you and also other DICECE trainers for the commitment that you have continued to show through the years towards the improvement of the programme for early childhood development (ECD) not only in Embu but also in Kenya. It is because of this commitment that the Embu DICECE continues to shine in the ECD map of Kenya. All we can say to you is thank you and keep up the good work. We look forward to sharing the findings of this study with you in order to improve the education standards, particularly those of ECD, in the district.

To the head teachers of the 18 primary schools sampled, namely, Ciamanda, Ena, Gichiche, Gitare, Kairuri, Kariru, Karurumo, Kathambaiconi, Kiaragana, Kiarimui, Kigaa, Kithimo, Kivuria, Macumo, Mukangu, Nduuri, Rukira and Rukiriri, we are extremely grateful to you for your generous support. We would like to say a big thank

photo: Children in Samburu District, 2000, *photo: Joanna Bouma*

you to all of you for allowing us into your schools to collect data. You provided us with a very friendly atmosphere that significantly facilitated data collection from yourselves, the teachers, the children and the parents. We are particularly grateful to you for your patience in providing all the records required for this study. Thank you also for making extra arrangements to make us even more comfortable through your hospitality of morning teas and lunches. The interviews with yourselves, the children, the teachers and the parents provided the team with important insights on issues related to the education system in the district. Sincerely, we cannot thank you enough and we wish you the very best of luck in your personal and professional lives.

Our sincere gratitude goes to all the primary school children who participated in this study. Thank you for your patience and for willingly giving us all the information we wanted. You were a joy to interview and we wish you success in your examinations and life in general.

Our sincere appreciation also goes to the parents of the primary school children for their participation in the focus group discussions. Thank you for your openness and for your contributions during these discussions. We shall always remain grateful for the open dialogues we had with you, your sharing and the commitment you showed towards the education of your children and towards the school as whole. We are certain that your support will continue. As we all know, communities are the citadel of the education programmes in Kenya.

The primary school teachers interviewed gave very pertinent information related to the teaching-learning process in the primary schools, discipline and personality development of pupils. We wish to acknowledge your contributions in this study and, more, the commitment you have for ensuring good academic performance in your pupils. In addition, you are key in providing good models for these pupils. We would like to thank you for moulding the character of these leaders of tomorrow. Your commitment to the pupils' welfare and that of the parents was touching. Keep up the good work!

We are also grateful to you, the preschool teachers who provided a head start in formal education and socialization of the little toddlers who came to you during their formative years. Thank you for participating in the moulding of the holistic

development of these children. Thank you for your open discussions and for sharing your experiences during the focus group discussions. You will always remain in our hearts because of your commitment to the cause of young children despite the many odds you face in your careers. You have continued to ensure that the flag of DICECE remains high throughout Embu. Your teachers' panels provided an important learning experience for us that we hope to share with other DICECEs all over Kenya.

Our sincere thanks also go to the education field officers who participated in the focus group discussions. The information you gave us has been instrumental in this research. Thank you for your concern and dedication to the improvement of education standards in Embu District.

To the research assistants, Jim Kangichu and Christine Muthoni Njiru, we would like to sincerely thank you for your commitment and dedication during the tedious task of data collection. It is because of this commitment that we were able to collect the data in this study. To Jim, special thanks go to you for assisting in data analysis and report writing. Jim, this report epitomizes your tireless efforts day and night that eventually made this report a reality.

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We cannot forget Nancy Mbugua for her typing services and handling other correspondence related to this study. Nancy, whenever we read this report we shall always remember you for the services you offered during this study.

Finally we would like to thank all those other people that contributed in one way or another towards the realization of this study and who may not have been mentioned. To all of you, thank you very much for whatever you did and may God bless you.

Ann Njenga and Margaret Kabiru,
July 2001

Executive summary

This tracer study, conducted in Embu District, Kenya, compares children who were cared for by preschool teachers trained in the two-year, in-service course run by District Centres for Early Childhood Education (DICECE) with those who had untrained preschool teachers. The comparison is done on the basis of academic performance and the factors affecting academic performance, such as retention, repetition and development of psychosocial characteristics.

The DICECE in Embu District was established in 1986, and the study traced cohorts of children who enrolled in the first level of primary school (Standard 1) in three consecutive years: 1991, 1992 and 1993. These children were tracked through primary school to the classes they were in in 1999.

Research instruments and methods included focus group discussions with preschool teachers, primary school teachers, parents and education field officers; interviews; content analysis on various school records, including attendance registers and examination records over the years; and a personality rating scale on a sub–sample of the pupils.

The study found that, in addition to playing an important role in the development of children, preschools also provide opportunities for parents to work together and to acquire knowledge and skills in various aspects of ECD. Parents provide various services to the preschools, and primary schools also contribute to preschools through the support given by head teachers.

Preschool teachers. The DICECE training has made an important contribution to the professional and personal growth and development of the individual teachers who have been through the programme. However, teachers need further training in management, in income generation and on children with special needs. They also face various constraints including poor terms and conditions of service and lack of adequate support materials.

Academic rating of primary schools. The primary schools in the study were rated as good or poor. This rating was based on the assessment of the research team, parents, teachers, and head teachers. Aspects of the school that affected its rating included the past academic performance of pupils, the availability of textbooks, relationships among

teaching staff, interactions between teachers and students and the managerial skills of the head teacher. As might be expected, the academic rating of the primary school had a significant impact on the performance of the pupils.

Performance of children in primary school. The study found several statistically significant differences between the two groups of children. The children cared for by DICECE-trained teachers were found to make the transition from preschool to primary school more successfully than children cared for by untrained teachers. This was shown in the significantly lower dropout and repetition rates in Std 1 for the children who had trained preschool teachers. This influence seems to diminish over time, but the impact can be seen to continue through all levels of primary school, although it is not as strong as school quality.

The study showed that the benefits of ECD intervention were best realized when children cared for by trained preschool teachers were enrolled in schools with good academic performance. When these children were enrolled in such schools, they did significantly better than either their counterparts who had untrained preschool teachers or those who had trained preschool teachers but were enrolled in poorly rated schools.

There was statistically no difference in academic performance between boys and girls. However, parents and teachers tended to feel that girls perform better academically than boys.

Absenteeism, repetition and dropout rates. There was very high wastage in the form of absenteeism, repetition and dropout rates in all the primary schools sampled. However, it was found that schools that were rated better academically had lower wastage rates than schools rated as poor.

The highest repetition rates were in Stds 1, 2 and 4. In Stds 1 and 2 the main reason for high repetition rates was poor transition from preschool to primary school. In Std 4 the main reasons for repetition was the use of English as a medium of instruction and the introduction of multiple teachers. Children cared for by trained preschool teachers tended to repeat more in Stds 4 and 5 while those cared for by untrained preschool teachers tended to have a higher rate of repetition in Stds 1 and 2.

Glossary of acronyms and terms used

ECD	early childhood development
CRE	Christian religious education
DICECE	District Centre for Early Childhood Education
GHC	geography, history, civics
GMP	growth monitoring and promotion
KCPE	Kenya Certificate of Primary Education
NACECE	National Centre for Early Childhood Education
NGO	non-governmental organization
PHC	primary health care
Std	Standard or grade level in school

chang'aa
a common illegal drink in Kenya made of a mixture of various products including sugar, sugarcane juice, and sometimes fruits. The drink is derived from the mixture of these products through the process of distillation. The drink has a very high alcohol content, hence it is highly toxic and intoxicating.

Harambee
self-help community activities, common throughout Kenya

jumbo sales
a locally held sale of small used items

matatu
privately owned public transport minibuses commonly used in Kenya. The vehicles, popularly known as matatus, have smaller seating capacity than buses, with a usual maximum of 20

merry-go-round
members of a group contribute an agreed amount of money each time they meet and this money is given to one or a few of the members in turns. This sharing continues until all members have received their share. Once the sharing is complete, they start all over again

miraa
leaves that when chewed have a soporific effect, also called ***qat***

weru
family gardens where families grow food crops, often quite a distance from the homestead

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Introduction

The demand for early childhood development (ECD) services has increased considerably in Kenya as a result of changing family structure and lifestyles. The number of extended families continues to decrease, and more parents are working outside the home. There is a large number of single parents, most of whom are poor and therefore need custodial care for their children. Results from the Kenya poverty assessment survey in 1995 indicated that a third of rural households are headed by females. These rural households and those in agricultural plantations, urban slums and peri-urban areas have the greatest need for alternative childcare: mothers are away from home most of the day, leaving their children without adequate care if no alternative is available.

In addition to the custodial aspects of childcare, most parents in the country are interested in ECD services for giving children a head start in formal education and providing opportunities for socialization. Having a good start for formal education is extremely important in Kenya, where the education system is highly competitive and examination oriented.

The quality of ECD services are, however, inadequate. Many centres do not have the facilities necessary for holistic child development. They lack basic play materials and appropriate programmes, as well as nutrition and health support services. There are still many untrained teachers who are not fully aware of children's needs and appropriate ways of interacting with children.

Efforts have been made to improve the quality of ECD centres through training of teachers, raising awareness in the community and capacity building. Curriculum and other support materials have been developed. However, such efforts have been limited by lack of adequate resources, policy guidelines and commitment, particularly from the government.

To mobilize more resources and greater commitment, it is necessary to evaluate and assess the impact of existing interventions. Most of the evaluations carried out so far have focused more on the processes of training, curriculum development, community mobilization and partnership between parents, communities, ECD personnel, the government and other agencies, such as the Bernard van Leer Foundation, UNICEF and the Aga Khan Foundation.

Associated with the Kenya ECD programmes since 1971, the Bernard van Leer Foundation has supported the development of a programme for training preschool teachers, trainers and supervisors. It has also contributed to strengthening parental and community support to ECD, as well as developing

photo: Learning to concentrate in preschool, Embu, 1999, *photo: Johnson Mwangi*

culturally relevant curricula and other materials for ECD. Since 1983 the Foundation supported the development of the National Centre for Early Childhood Education (NACECE) which investigated the integration of health and nutrition components in ECD centres through the involvement of parents and communities. With this long association and commitment, it is appropriate at this stage to establish and document the impact of ECD interventions on the children.

Conceptual framework

ECD is crucial for healthy human development and for enhancing the learning and educability of children. There is an increasing body of knowledge emphasizing the importance of the first few years of life in the physical, mental, social and emotional development of the individual. It has also been established that developmental deficiencies occurring during this period are difficult to reverse.

ECD experiences have been shown to have a positive influence on school enrolment, performance and rates of retention. ECD programmes can also be used to improve children's nutrition and for health surveillance – important factors in learning and for ensuring holistic development in children. The disintegration of the extended family structure, rising numbers of female-headed households, increased urbanization and poverty have all eroded the ability of most families to provide for their children's needs. ECD programmes provide much needed support to families in ensuring the healthy development of their children.

Empirical data exist that indicate that consistent and good quality ECD services are the most important factors in child development, irrespective of the theory of early childhood education that the programme is based on. Important elements of quality ECD are the involvement of parents in the programme and the type of teacher/caregiver. The 'good' teacher/caregiver is one who has positive self-esteem, loves working with children, interacts freely with them and respects and encourages their efforts. Well thought-out training programmes play a crucial role in the making of a 'good' teacher/caregiver. The Bernard van Leer Foundation and the people of Kenya have invested a lot in terms of ideas, money and time in ensuring the development of such teachers. This has been realized through well-articulated training programmes for teachers, trainers and supervisors that have been developed and carried out by the National Centre for Early Childhood Education (NACECE).

Statement of the problem

It is evident that stakeholders would be interested in – and would benefit from –

studies on the impact of ECD programmes on child development, particularly their impact on schooling and academic performance. One major area of interest is the role of the ECD experience in preparing children for formal schooling.

Studies on this aspect of ECD can be traced back to the 1930s in the United States. Skeels and Dye (1939) conducted a study that indicated a relationship between the ECD experience and some gain in IQ. A follow-up study 21 years later (Skeels, 1966) showed that the experimental group from the first study had attained an average of 11 years of schooling. Most of them were married and all were self-supporting. The control group had an average of four years of schooling. Very few were married, a few were in institutional care, and those who were employed had marginal jobs. This would indicate that the ECD experience has some influence on the success or failure of an individual's life (Wood, 1982).

These findings, plus research from the late 1950s and 1960s, generated new interest in studying the impact of ECD on school performance. Similar research in industrialised countries such as Australia and the USA has shown that ECD experiences are effective in helping the child to form a smooth transition from preschool to formal schooling. Although the academic effects seem to diminish after some years, gains in the areas of social adjustment, reduction of delinquent behaviour and achievement motivation appear to be more lasting. In Africa, there is not much evidence of such systematic studies on the impact of the ECD experience on children's development. Here in Kenya, attempts have been made by the Aga Khan Foundation to assess the impact of the Islamic Integrated Education Programme on the enrolment, retention and performance of children who have participated in it. It was found that the majority of the graduates of this programme enrolled in primary school but their performance by the end of primary school was no better than of children who had undergone other programmes (Wamahiu, 1995). The study mainly looked at academic performance and did not cover other aspects of child development. In addition, it looked at a very specific ECD programme, which could limit the application of its findings to general national issues and populations.

The study presented in this report has attempted to look at the impact of ECD experiences on children and their families. Its focus is on children who have been cared for by teachers who have undergone the two-year in-service course given by the NACECE and DICECE programmes. The study also collected information from parents and community leaders in order to assess the impact of DICECE training on the family and the community.

THE TWO-YEAR DICECE TRAINING PROGRAMME

The two-year DICECE programme provides in-service and on-the-job training with two components: residential and field experience. The residential training takes place during school holidays in the months of April, August and December, with teachers attending six residential training sessions over the two-year period. Each of these sessions lasts three weeks, amounting to 18 weeks. During the residential sessions, the teachers study a wide variety of subject areas, including child development, health and nutrition, ECD curriculum, thematically integrated learning approaches, foundations and administration of early childhood development in Kenya, general knowledge and languages (English and KiSwahili).

Residential training sessions are alternated with field experience, each of which consists of three months, taking place three times a year during the school term. There are five field sessions during the two-year training period.

The field experience provides an opportunity for teachers to continue teaching while undergoing training. This means that they are able to retain their jobs. They are also able to test the theories they learn during the residential sessions, to find out what works and what does not work.

This arrangement of alternating residential and field experience has proved to be very effective because the teachers are able to discuss their field experiences during the alternating residential sessions, thus ensuring that the two components enhance each other.

Objectives

The objectives of this tracer study were as follows:

- to track children who had been cared for by DICECE-trained teachers and those cared for by untrained teachers
- to assess and compare the academic performance of children cared for by DICECE-trained teachers and those cared for by untrained teachers
- to assess and compare the social skills, confidence and self-esteem of children who were cared for by DICECE-trained teachers and those cared for by untrained teachers
- to identify factors – other than the ECD intervention – that influence academic performance, retention, repetition and development of psychosocial characteristics

- to assess the impact of DICECE training on the family and the community

The project site

Embu District was selected for this study because it provided a fairly homogeneous rural community. In addition, Embu DICECE was established in 1986. It has a long history of training preschool teachers through the two-year DICECE course and would therefore provide a varied sample, as required in this study.

Geographical and administrative background of Embu District

Embu is among the smallest districts in Kenya. It is found on the slopes of Mt. Kenya and borders Meru to the north, Mbeere to the south and Kirinyaga to the west. Embu is comprised of five administrative divisions: Manyatta, Nembure, Runyenjes, Kyeni and Central. Embu town is the district headquarters and also serves as the headquarters for the Eastern Province.

Embu District is characterized by highlands, hills and valleys. The highest ground, at the top of Mt. Kenya, is over 4,575 metres above sea level. The southern part of the district is generally lower than the northern part. Topography influences the ecology of the district. Most of the district is suitable for agriculture and livestock, but the central and northern parts are particularly high in agricultural potential. The northern part has red mountain soils, which are suitable for tea farming, while most of the other areas are covered by loamy soils.

Embu has two rainy seasons: short rains (March to May) and long rains (October to December). The northern part of the district is quite wet, with 2,000 mm of rainfall annually. Rainfall decreases with the fall in altitude, and the southern part is relatively dry.

People of Embu

The 1989 census estimated the population of Embu at 234,735, with an average growth rate of 4 percent. Children under 15 years of age make up more than half of the total population. The majority of households in 1989 were quite large, with over five children per household. However, because of land shortages in the high potential agricultural areas, there has been emigration to low potential areas, which has reduced the growth rate to between 3.6 and 3.8 percent. Recent population projections show the Embu population as having increased significantly. The 1999 projection has the population at 310,856.

Population distribution and density in Embu is positively correlated with climate and land productivity. The majority of the people live in the upper and middle zones where land potential is high. In upper Embu, which is agriculturally a high potential area, the

population density is high, while land size per household is small. The opposite is true for the lower and drier areas, which have larger land holdings and are more sparsely populated. A significant number of people also live in urban centres, especially Embu town and Runyenjes town, which both enjoy status as municipalities. Other centres are categorized as urban, local or market centres and have relatively small populations.

The Embu-speaking people constitute the majority of the inhabitants of the district. Upper highland zones, especially, are predominantly inhabited by indigenous Embu people. However, in the lower region, migration to this area by people from other districts – most notably from the Central Province – has resulted in a considerable ethnic mixture. Most of the people who migrate into the district buy land for farming and settle down. People from all corners of the republic reside in Embu and Runyenjes towns.

Housing conditions are average in Embu. Iron sheet roofing is common throughout the district. Grass thatching is minimal, but mud walling is still predominant. A considerable percentage of the households have permanent houses, but the majority have semi-permanent dwellings. Most households, especially in the upper zone, have tap water. In the lower zone, water is scarce and has to be fetched from rivers, streams and wells that are often far apart. Fuel wood is the most common source of energy, with petroleum products a second source of household energy and lighting. Only a few households have electricity.

Agriculture is the single most important activity in Embu, and the majority of people are small-scale farmers. Cash crops, especially coffee, are marketed through cooperatives. Coffee is the most important of the cash crops and is the mainstay of the middle and upper zones. Tea flourishes in the highland zone, while tobacco is characteristic of the lower zone. The major food crops include maize, beans, bananas, vegetables, fruits, cassava, peas and millet, which are also grown for market. Livestock farming has seen great strides over the years in Embu. Indigenous breeds have gradually been replaced with exotic and cross-bred animals. Cattle farming is practised on a small scale in the entire district. Small ruminants – goats and sheep – are also kept.

Civil servants, teachers and workers in the private sector represent a reasonable proportion of the Embu people. Other people are in the informal sector as retailers, artisans, technicians and domestic workers. Unemployment is still widespread due to the huge number of young people graduating from high schools and colleges who flood the job market and cannot find employment.

Health services

There are 21 government health facilities in Embu, including one hospital, a sub-district hospital, one rural health training centre and two health centres. The rest are dispensaries. There are also privately owned health facilities. The district enjoys a fairly strong community-based primary health care (PHC) programme. There is strong community participation in growth monitoring, oral rehydration and immunization. Nutrition has also seen steady improvement, with negligible under-nutrition seen in recent years.

Educational services

By 1999 there were 136 primary schools in nine educational zones in Embu. There were also 14 private primary schools, most of which were sponsored by churches. The percentage of preschool age children enrolled in preschools in the district is relatively high.

Most primary schools in the district are relatively well developed in terms of physical facilities, supported by 2,448 primary school teachers, of whom 948 are men and 1,500 are women. There are also a good number of boarding schools, most of which are church-sponsored. Such schools are more expensive than the public schools and their academic performance is also relatively higher. Parents from Nairobi and neighbouring districts who can afford the boarding school fees send their children to these schools, making the district an important educational centre.

Secondary school education in Embu has expanded over the years, with many newly established schools in almost all the areas. These schools have been built through community activities, called *harambees.*[1] Successful *harambees* have been held to upgrade existing schools as well. There are also a few village polytechnics and community centres offering informal training in technical areas.

The contribution of the church – Catholic and Anglican – to the development of education in the district has been notable, as can be seen by the strength of church-sponsored schools, which are among the best in the district. The impact of the church on development can also be felt in the health sector, where quite a number of health facilities are church-sponsored. Other areas of development with a strong church tradition include special education and the formation of self-help groups.

Self-help groups

The women of Embu have contributed handsomely to the development of the district in their own special way. This has basically been through self-help activities carried out in the form of 'merry-go-rounds', where members of a group contribute an agreed amount of money

1 *Harambees* are self-help community activities, common throughout Kenya.

each time they meet and this money is given to one or a few of the members in turns. This sharing continues until all members have received their share. Once the sharing is complete, they start all over again. These activities have greatly supplemented the incomes of households and, more significantly, enhanced the economic emancipation of women. Such self-help groups are found at many levels, including village, church and clan, and among people of the same profession/occupation. Other community programmes are undertaken and facilitated by non-governmental organizations (NGOs), the government, the church and other agencies.

Infrastructure

The district has a classified road network that includes bitumen roads, but most roads are earth-surfaced and are impassable during the rainy season. The electrical network is underdeveloped, especially in rural areas. There is need for rural electrification in order to speed up development in the agricultural sector. Postal and telecommunication services have improved reasonably in recent years. There is a post office in Embu and a departmental post office at Runyenjes. Telephone services are available in a few homesteads.

Summary

During this study, it became quite evident that Embu is a district on the move. This metamorphosis can be experienced in almost all spheres of life. It is the result of hard work and the generally positive approach of the people, who are friendly and very receptive to new ideas. The research team was accorded overwhelming support at all levels, which enabled it to satisfactorily accomplish its goals in good time.

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Methodology

The tracer method was used to study the impact of the quality of ECD experiences and training of teachers on child development, school performance, retention and repetition. The study compared the academic performance, retention, repetition and personality development of children who were cared for by preschool teachers who had undergone the two-year DICECE training course with those who were cared for by untrained preschool teachers. This study also attempted to look at the impact of DICECE training on families and the local community. In addition, it examined other factors that influence the academic performance and personality development of primary school pupils.

The sample

With the assistance of DICECE trainers, the research team started by identifying preschool teachers who had completed the two-year DICECE course in 1989, 1990 and 1991 and who began caring for preschool children as trained teachers in 1990, 1991 and 1992, respectively. It is from this group that the sample of preschools with DICECE-trained teachers was derived.

Eighteen preschools were sampled for the purpose of this study. Out of these, nine had DICECE-trained preschool teachers in 1990, 1991 and 1992. The other nine schools had children who were cared for by untrained teachers during the same period. It was expected that the children cared for by the two groups of teachers would have reached Stds 6, 7 and 8 by 1998 if they enrolled in Std 1 in 1993, 1992 and 1991, respectively, and if they had not repeated any classes.

Most preschools in Embu are found within the larger primary school compounds; children end up enrolling in the same school for Std 1 and continue the rest of their primary education in that school.

The following criteria were used in sampling the schools to be studied:

- training of preschool teachers: trained versus untrained
- ecological zones: high, medium or low agricultural potential
- administrative divisions
- academic performance of the schools: good or poor as rated by educational officials, teachers and parents – see Chapter 7

The children

From preschool, children were traced to the primary schools they attended, usually the one nearest the preschool. Enrolment records and attendance registers for Std 1 were not available in all the schools, and in some, only part of the records and registers were available.

photo: Preschool children clearing up after play, Embu, 1999, *photo: Johnson Mwangi*

This affected the sample of schools that could be used for the tracer study: only 12 of the original 18 schools selected could be used.

With the help of a primary school teacher in each school, all children who enrolled in Std 1 in 1991, 1992 and 1993 were tracked. It was originally intended to track them up to 1998, which is when the data were collected; however, some information was late and did not reach the researchers until the following year, so the information was extended to cover the children's progress through 1999.

Some children transfer to boarding schools after Std 4 and it was beyond the limits of this study to track them. It was therefore expected that the total number would fall marginally. For the rest of the children, it was possible to anticipate the highest class that they would have reached by the time the study was carried out because the year of enrolment in both preschool and Std 1 was known. For example, the sample of children who attended preschool in 1990 and enrolled in Std 1 in 1991 should have been in Std 8 in 1998 and in Form 1 in 1999. Single-class repeaters would be in Std 7, while children who had repeated at least twice would be in Std 6.

A number of sub-samples were used for different aspects of the study. For example, in each of the schools, a sub-sample of 20 children, 10 boys and 10 girls, was selected for interviews and for administering the personality-development rating scale. The class teachers assisted the research team in selecting these children. The total number of children for whom this information was collected and could be used in the study was 322 (153 who were cared for by trained preschool teachers and 169 who had untrained preschool teachers).

Other respondents

Other respondents included the head teachers of the 18 primary schools sampled and the upper primary school teachers of these schools who taught mathematics, science, agriculture, KiSwahili and English. At least six teachers were selected in each school to participate in focus group discussions. A total of 110 teachers participated.

Parents with children in upper primary school were invited to participate in focus group discussions. For every school, 10 or 11 parents, balanced by gender, participated. A total of 198 parents took part in the discussions.

Sixteen DICECE graduates participated in a focus group discussion facilitated by the DICECE trainers and the researchers. In addition, five education field officers were interviewed as a group.

Data collection methods and procedures

A range of methods were used to collect information for the study, including

searching records and registers to track pupils' progress, conducting interviews, holding focus group discussions, and scoring observation schedules and rating scales.

Pupils

In order to obtain statistical data for tracing the cohorts of children through their primary school cycle, past academic records and attendance registers were scrutinized. These provided information on the academic performance of pupils as well as absenteeism and repetition of classes. This information could only be satisfactorily collected in 12 schools.

Individual information on personality development and attitudes was collected mainly through direct interviews, which involved, first and foremost, creating a good atmosphere and rapport with the pupil. In order to help the child to relax and feel confident, and to minimize any inhibitions, the children were addressed in a warm and friendly manner. It was important to cheer them up so that they would respond to the interviews freely. Most children were confident and opened up easily, answering all questions as asked. A few would not open up, and it was very difficult to obtain information from them. These pupils were observed on their physical presentation, mannerisms, fluency, confidence, cleanliness and health. Their class teachers also completed a rating scale on these attributes, based on their daily interactions with the pupils.

Primary school teachers

Focus group discussions of upper primary school teachers were conducted with teachers for Stds 6, 7 and 8 and were facilitated by the DICECE trainers and the core researchers. Participatory methods were used and some of the key issues highlighted in the discussions included absenteeism, repetition, retention, management and administration issues, the impact of DICECE training and the school's academic performance. Problems afflicting the school and suggestions for remedial measures to be taken were also discussed.

Classrooms

Classroom observations of the teaching-learning process were also carried out by the core researchers in some of the primary schools. Some of the issues assessed included the teaching-learning methodology and its suitability, as well as the availability and use of materials – textbooks and other support materials. The presence of the core researchers did not seem to interrupt the teaching-learning process.

Parents

The focus group discussions for parents of pupils in Stds 6, 7 and 8 also involved members of primary school committees. Parents were open, receptive and very willing to participate in the discussions; they looked at the research team as people who had come to give them technical advice. The parents and the committee members used these discussions as an

opportunity to find out how to improve their schools. The information collected from these discussions clearly portrayed the kind of attitudes parents have towards education. The open dialogue with parents was an enriching experience, not only for them but for the research team as well.

Parents in poor performing schools seemed helpless and in need of guidance. They looked forward to advice from the research team. In the good schools, it was clear that there was good cooperation between pupils, teachers, parents and the school administration. The working relationship was warm and cordial in these schools.

In total, the research team was greatly impressed by the parents' positive attitudes towards schooling and their keenness to discuss their children's welfare. This is a manifestation of their commitment towards their children's well-being. It was also apparent from their responses that special efforts are made for the education of girls. Mothers encouraged girls to continue with education to higher levels.

Head teachers

The head teacher of each school was interviewed alone by the core researchers and the DICECE trainers. The nature of the information collected was similar to that of the group discussions with parents and teachers.

Preschool teachers

Preschool teachers were interviewed in two focus groups facilitated by DICECE trainers and the core researchers. The teachers outlined achievements and problems encountered during their work as preschool teachers. They also described how the DICECE training had transformed their lives and the impact the training had on their families, as well as on the educational system and on the community.

Schools

A general observation and assessment of physical facilities available in the sampled schools was carried out, including buildings, furniture, compounds, gardens, fencing and crucial services, such as sanitation and availability of water. Nearness to major roads and availability of telecommunications were also observed.

The research team also assessed human relations in the schools. Areas of interest included the discipline of pupils and teachers, and interactions between the various groups: pupils, teachers, parents and head teachers. This information was used in compiling school profiles.

Dropouts

Tracking dropouts was difficult because these children were not, of course, in school. Lack of adequate records in the sampled schools further complicated this exercise. As a result, an alternative

method was devised to attempt to track the dropouts.

In this method, the children from each of the cohorts (i.e., those enrolled in Std 1 in 1991, 1992 and 1993) proved to be of paramount assistance. They were asked to try to remember their colleagues who were enrolled in Std 1 with them and who, for one reason or another, were no longer in school. Their sharp memories amazed the research team. The information given, when verified against the few records and registers available, proved quite reliable. Apart from getting the names of the dropouts, it was possible to establish when they had left school and, in some cases, the circumstances leading to their dropping out.

Limitations of the study

- Distances between schools were enormous and, in most places, there was no public transport available. Consequently, the research assistants had to walk long distances to reach the sampled schools.

- Looking for academic records and attendance registers that were in storage was a very demanding exercise. Few or none of the relevant records were readily available, and looking for them was quite frustrating and time consuming.

- Embu being a wet district, the research team was constantly slowed down by bad weather conditions. The terrain was also rough, and most of the roads were impassable during the rains.

- The vast distances between the sampled schools forced the research team to work very hard to finish their work in one day in order to avoid a second visit. This often resulted in long working hours and fatigue.

- There was a great deal of data to be collected over a limited time.

- Some head teachers and their deputies were unavailable when the research team visited their schools, which meant that second visits had to be arranged because some of the information required from them was highly confidential.

- The process of data collection was particularly slow in the large schools because there were so many records to go through.

Strengths

- The DICECE officers were very hardworking and committed to the success of this project.

- The communities targeted by the study were warm, friendly and very cooperative. They readily volunteered the information requested. The schools also treated the research team

with very high regard, which facilitated the data collection.

- The study had adequate financial resources; consequently, all the planned field activities could be carried out.

- All the schools sampled were informed about the study way in advance; hence, most were ready for the research team on arrival.

- Different roles and responsibilities in collecting data were very clearly outlined. The research personnel were also well trained and worked hard to meet their targets.

- In the poor performing schools and in schools with administrative problems, parents showed genuine concern and a willingness to address the problems facing their schools.

- Receptive and cooperative, the district education office and the provincial administration were particularly helpful to the research team.

- The data collection exercise was particularly challenging, interesting and exciting. There was a lot to learn from the communities, the children, the state of education in Embu and generally everything about research. At the end of the exercise, one felt a sense of achievement. The experience was enriching in many ways for all those who participated in the study.

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The importance of preschools

Preschools are an important educational resource in the community. They provide many benefits to the lives of individual children, parents, families, communities and other community institutions.

The family

Parents felt that preschools were important to the family because they mould a child's character. The preschool teachers instil discipline and ensure that children are respectful and clean. Preschools provide custodial care and free mothers to participate in other activities. One mother said that the preschool *acts as a baby sitter.* Another said that,

> *As a mother, I am happy because I know the child has security with the preschool teacher. I have stopped employing a maid to look after her.*

Parents are happy with preschools that provide a feeding programme for the children. Many parents also said that preschools are important because they prepare children for primary school. Children learn how to read and write at the preschool, according to the parents. Two of the comments were

> *The preschool prepared my children and they have done very well. It has made me to understand children. I have learnt to appreciate children. When you appreciate children, they love learning.*

Primary school teachers similarly said that preschool benefits the family by socializing children, instilling good manners, and teaching them songs and prayers. Preschools also allow parents to engage in productive activities such as picking tea or going to the *weru* area where families grow food crops and which is quite a distance from the homestead.

The community

The parents who participated in the focus group discussions said that the community benefited from the preschools because parents are able to participate in productive activities when their young children are taken care of in the preschool. The preschools are usually near the homes, which ensures that children are safe and they do not have to travel long distances. Preschools provide employment for local preschool teachers, and cooks in some cases. Some members of the community have learnt cooking skills through demonstrations held at preschools. They have also become more aware of the importance of a proper diet. The trained teachers are leaders and counsellors in the community. They share their knowledge and skills with the community.

Preschools are also said to encourage early enrolment of children into formal

photo: 'Do as I am doing', preschool in Embu, 1999, *photo: Johnson Mwangi*

schooling. Primary school teachers saw the role of the preschool as that of creating awareness in the community of the importance of schooling and of the proper care of children. Because the preschools are near home, they encourage older children to assume the responsibility of accompanying their younger siblings to school and taking care of them. Like parents, the primary school teachers emphasized the socialization and head-start role of the preschool and viewed this as a direct benefit to the whole community. They also mentioned opportunities for employment in the preschools for local people and the fact that the preschools free mothers to engage in other economic activities.

The primary school

Parents believe that the preschool gives their children a good foundation in life and teaches them to mix well with other children. Children who have attended preschool make the transition to the more formal approach of the primary school more easily. They also learn the rudiments of reading, writing and arithmetic in preschool. According to parents, the preschool is the springboard for primary school. It prepares children for academic work and school routines, as well as building character and enhancing socialization.

Similarly, teachers see preschools as institutions that provide good preparation for literacy. Children are socialized into school life and develop qualities such as confidence, awareness, self-care skills, social skills and language, all of which help prepare them to learn. The preschool, as one teacher said, is the 'gateway' to the primary school. One head teacher said,

> *If I want to improve performance in my school, I must start at the preschool by making sure that children are loved and use interesting materials and methods. This preschool is the foundation of my school.*

Some of the trained preschool teachers help Std 1 teachers to develop learning materials and to use the child-centred learning approaches.

Things learnt from the preschool

By parents

According to the parents, the preschools have created an awareness of the importance of laying a good foundation in children. Children who have attended preschools behave better than those who have not. Children in the preschool are keen learners and know many things; they learn religion and how to read and write through the use of materials. Parents have learnt how to make toys and learning materials, and consequently, they appreciate the role of materials in enhancing learning. Parents have also learnt the importance of cooperation between the community and the preschool teachers in order to

provide a child-friendly environment that enhances the learning of children.

By primary school teachers

Primary school teachers said that they have learnt many things from the preschool. They have observed that preschool teachers relate better with children and behave like parents towards the children. The atmosphere in the preschool is friendlier than that in the primary school and, as a result, children in the preschool are very friendly and welcoming.

Teachers have learnt a lot about material development and the use of materials in providing a stimulating learning environment for children. Some of the teachers in lower primary said that they had started using materials in their classes. One teacher emphasized that she allows her own children to play with and use materials at home.

The teachers have also learnt about grouping children and organizing the classroom. A number of head teachers said they are encouraging their teachers to apply the methods being used in the preschools. Preschool teachers have organised themselves into panels that meet once a month for discussions and for material making. Primary school teachers admire this arrangement by the preschool teachers because it enables them to learn from and encourage one another.

From parents

Most of the parents said they contribute materials to the preschools. Many have participated in material development workshops organised by the preschool teachers.

They also provide ingredients for the mid-morning snacks, such as sorghum and sugar. Some have participated in cooking demonstrations organised at the preschools. They have also participated in putting up physical facilities, and they pay levies.

From primary school head teachers

Primary school head teachers seem to provide a lot of assistance and guidance to preschools. They supervise the preschool teachers and some are also responsible for paying them. Head teachers encourage preschool teachers to attend seminars and panel meetings; one even said he had requested and been granted funds by the committee to sponsor the teachers for an educational tour to Mombasa. Some head teachers attend workshops organised by preschool teachers.

Head teachers provide materials to preschools and organise primary school children to collect and make materials for the preschools. They also ensure that the older children clean the preschool classrooms. One head teacher said that he provides for 'spiritual nourishment' for children through their participation in school assembly.

From primary school teachers

Few primary school teachers seem to interact with the preschools. Those who do, help the teachers with the development of materials and also give some advice. Some organise and supervise older children to collect materials for preschool, clean up preschool classes and bring firewood and water for preparation of snacks for the preschool children. Only a few teachers said they had participated in demonstrations for making materials and cooking organized by the preschool teachers and ECD trainers.

The importance of training for preschool teachers

Why training?

Teachers said that they went for training to better themselves and to acquire more skills to help them provide better care for children. They found training useful because they learnt how to handle children, and they acquired new teaching-learning approaches in ECD as well as record-keeping skills. They also learnt how to relate well to parents and head teachers.

Effect of training

After training, teachers become more self-confident and can discuss issues with parents and the committees. They are very proud of their work. Teachers said that they had very little self-esteem before training. They went further and said that primary school teachers, in particular, looked down on them. One of the preschool teachers commented,

> *The preschool teachers had fear. We had small salaries. We felt useless. Even parents and the head teachers would sack you whenever they felt like sacking you. . . . After training I developed confidence because I knew what to do; I am able to teach well and I am proud of my work. Other teachers respect me because of my good work. They appreciate me as a teacher. I can mix with them with confidence!*

The teachers said that they are now happy in the schools because they are treated as the teachers in the primary schools are and are allocated general duties such as supervising the school, just like the other teachers. They are also able to articulate their needs better and to negotiate better terms of service.

On relationships with children

According to the teachers, the greatest impact of their training is on the children that they teach. The teachers felt that they related to children better after training and that this helped them reduce discipline problems. They know the importance of providing materials and being friendly with the children. They are also able to guide the children better and to stimulate them in learning. The children are livelier now, friendlier and happier. They have more fun in the preschool and want to stay in school. Teachers feel that learning is more enjoyable. Since training, they now note that the children they teach are more confident; they are able to express themselves properly to peers, other children, teachers and other adults.

Teachers are clear about what they want children to achieve in the preschool. They hope that children develop skills to enable them to play and socialize with others. They wish to have bright and happy children who have respect for other people and who interact freely with others. They want children who know the dangers in their environment, who are confident and who are prepared for

photo: Enjoying porridge, 1999, *photo: Johnson Mwangi*

basic literacy with skills such as recognition of numbers, letters, colours, shapes and sounds, the ability to manipulate objects, to read simple words and to do simple addition.

Teachers hope that children will also be prepared for general school life by being confident and familiar with other children and teachers.

Parents and the primary school teachers are happy with the changes they see in the children. The parents and teachers have now come to appreciate the close relationship between children and adults and appreciate the importance of play, games, stories and poems in enhancing the learning of children.

On relationships with other teachers

The trained teachers said that they have better relationships with other teachers and they discuss children's problems with them. One teacher observed,

> *Before I was trained, we used to be in our classes without sharing. After training, I created teamwork in the school. I started sharing my ideas with untrained teachers. I taught them how to plan their activities and make materials. We now work as a team.*

Preschool teachers' panels

One of the major outcomes of the training is the creation of teachers' panels. Trained teachers are able to share ideas and skills in planning and in interacting with children. Teachers also discuss matters related to their families.

Different panel members are assigned duties – each teacher provides leadership in one area. The teachers organize teaching-learning demonstrations so that those who are not trained learn from those who are. They move from one preschool to another on a monthly basis and prepare toys and other learning materials in addition to discussing or demonstrating the topic of the day. The materials developed are left in the preschool where the seminar takes place.

These panels are held at the sub-zonal level and are made up of about 10 to 12 teachers. The school inspectors are aware of the panels, as are the head teachers and the parents. Sometimes the inspectors, tutors from the Teacher Advisory Centre, DICECE trainers and primary school head teachers attend the monthly panel meetings. One of the education field officers who participated in the focus group discussion for field officers said,

> *In Embu, you may not know a trained from an untrained preschool teacher because of the regular seminars and panel meetings whereby the teachers share their experiences.*

The teachers have also set up sub-zonal resource centres. They select the most central preschool and develop a variety of learning and play materials so that parents

and teachers can use them as examples. This preschool is also used for cooking demonstrations in which parents participate.

At home

The teachers are happy that they have learnt to make budgets, which they do even for their own money. The have learnt how to prepare good meals and to keep their families together, clean and in good health. They have also learnt how to relate better to their spouse or how to choose a spouse in the future.

The trained teachers said that they have made many changes in their homes as a result of training. These include the following:

- better time management
- cooking better food for the family
- having kitchen gardens where they grow vegetables
- learning how to dress well and appropriately
- keeping their houses clean and well organised
- being able to interact better with their spouse and treating their spouse better
- being able to communicate better with their in-laws
- participating in their own children's activities
- providing stimulating activities for their own children
- enhancing the learning of their own children by providing learning and play materials at home
- helping their own children with schoolwork
- emphasizing respect for teachers with their own children

In the community

The teachers mix with different groups in the community. They act as leaders and trainers in the women's groups and lead discussions on health, hygiene and child care. The teachers hold key posts, such as chairperson, secretary or treasurer, in the women's groups, which shows that the community has a lot of confidence in and respect for them. They advise parents on the importance of taking children to preschool and ensuring that the children continue with schooling. They advise parents on issues of health, particularly how to improve the nutrition of children by using locally available foods. The teachers also make parents aware of the importance of instilling respect in children, particularly for teachers and older people. This growth can be illustrated by the following statements made by the teachers:

I have confidence to teach others how to relate to others.

I have helped the members of my women's group to relate to each other in a more mature way. Our meetings are now serious. We now observe behaviour norms.

I create awareness to the group members on how to discipline children and how to develop good character in their children.

Training taught me how to socialize with older people. Now I socialize better with them. I help my group to keep accounts and to compile the minutes of the meetings. The group members are happy with me. They appreciate my services as a chairperson. I have helped our group to become better organised.

Additional training

Since the DICECE certificate course, most of the trained teachers have attended seminars, workshops and panel meetings on a regular basis. These forums have provided them with opportunities to acquire additional skills and ideas in such ECD areas as development of toys and other learning and play materials. They have also acquired management skills. They participate in cooking demonstrations together with the parents, other members of the community and primary school teachers. Some of the teachers have also attended seminars on better farming methods, church leadership, transition from preschool to primary school, youth leadership and visually impaired children.

The teachers identified the following as important areas for further training:

- child welfare, particularly children with special needs
- integration of children with special needs
- HIV/AIDS
- project management
- income-generating activities
- how to start and manage one's own preschool
- thematic learning

The teachers would like to have further training to acquire more teaching skills. Since lifestyles are changing, they would like future seminars to help them cope and adapt to these changing situations. They would also like to know how to deal with difficult parents.

Problems and constraints

The majority of preschool teachers are employed by the parents under the

management of ECD Centre committees; a few are employed by the local government. Salaries for teachers employed by parents come from the fees paid by parents, but these fees are also used to buy such materials as chalk and attendance registers.

The problems that the teachers face include the following:

- lack of respect from some administrators and parents
- inadequate materials
- low and sometimes irregular salaries

Solutions to problems

Some possible solutions to these problems include the following:

- frequent meetings with parents and teachers to create better understanding
- frequent revision of salary guidelines to attempt to adjust to rising costs of living
- regular payment of salaries
- having the preschool teachers placed under one employer for uniformity and for better terms and conditions of service

Tracking pupils through the primary school cycle

One of the objectives of this study was to track children cared for by trained teachers and those cared for by untrained teachers. The pupils were tracked through the primary school cycle from the year they enrolled in Std 1 (1991, 1992 or 1993) to 1999.

Eighteen schools were sampled, and 12 of these were used for tracking, four for each of the three years of Std 1 enrolment (1991, 1992, 1993). Two of each group of four schools represented those with DICECE-trained teachers and two were selected with untrained teachers. It had been anticipated that the entire sample of 18 schools would be studied but, as noted, the lack of records meant that this was not possible in more than 12.

The tracking exercise included a thorough scrutiny of all the available school records on these children, including school admission registers, class enrolment records, attendance registers and sometimes performance records. This information enabled the research team to identify and confirm admissions to Std 1 during these years and to track the children up to their current classes. However, since the registers alone were not enough to give the required information on all the pupils appearing on the admission registers, the pupils who were still in school provided this information. These pupils were assembled and provided information as a group. This not only proved a reliable way of collecting information, but also an efficient method of cross-checking the information already obtained from the records. It was possible to determine the current whereabouts of most of the children using this method. The teachers and the school head teachers were also interviewed and contributed information.

The enrolment for the pupils in each of the reference years is summarized in Table 5.1.

Thus, a total of 913 children were progressively tracked up to the end of 1999. The following is a progress report for these children.

TABLE 5.1: ENROLMENT OF PUPILS BY YEAR

Year of admission in Std.1	Trained			Untrained			Total Admissions
	boys	girls	total	boys	girls	total	
1991	116	113	229	80	82	162	391
1992	85	66	151	88	78	166	317
1993	66	50	116	44	45	89	205
total	267	229	496	212	205	417	913

photo: Standard 1 boys playing a favourite game, Embu, 1999, *photo: Johnson Mwangi*

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1991 cohort of children cared for by trained teachers

In 1991, the first cohort of children was admitted to Std 1. By 1999, these children should have been in Form 1 of secondary school. However, out of the 229 children in this cohort who had been cared for by trained preschool teachers, only five (two boys and three girls) were at the expected level; 135 of the original group had repeated at least once. The first three class levels had very high rates of repetition among these children, with those retained in Std 2 being the largest group (45 or 23 percent of those expected to enter Std 3).

1991 cohort of children cared for by untrained teachers

Out of the 162 children who had been cared for by untrained preschool teachers and who enrolled in Std 1 in 1991, 14 children (11 boys and three girls) were in their expected class (Form 1) in 1999. Fifty-six percent had repeated at least one class, which is very similar to the number of children cared for by trained teachers who had to repeat. The average number of students repeating a class was about 20 percent for this group.

1991 cohort: comparison between the two groups

The percentage of children cared for by untrained preschool teachers who had attained their expected class level by 1999 was notably higher than the percentage of children at that level who had been cared for by trained preschool teachers. This could be explained in part by the academic ratings of the four schools sampled for tracking this cohort. The two schools used to track the

TABLE 5.2: SUMMARY OF 1991 COHORT CARED FOR BY TRAINED TEACHERS

original number in 1991	at expected level in 1999		transferred		repeated at least one class		dropped out		total still in school 1999	
	number	percent	number	percent	number	percent	number	percent	number	percent
229	5	2	24	10	135	59	61	27	140	61

TABLE 5.3: SUMMARY OF 1993 COHORT CARED FOR BY UNTRAINED TEACHERS

original number in 1991	at expected level in 1999		transferred		repeated at least one class		dropped out		total still in school 1999	
	number	percent	number	percent	number	percent	number	percent	number	percent
162	14	9	11	7	91	56	46	28	105	65

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children cared for by untrained preschool teachers were both rated as having good academic performance (see Chapter Seven for an explanation of the ratings for good and poor performance). Of the two schools sampled for the children cared for by trained teachers, only one was rated as having good academic performance.

The rate of repeating a class was very similar among children in both groups, as was the number who dropped out. Although the total number of boys (13) who made it to Form 1 without having had to repeat was higher than the number of girls (6), there were no significant differences observed in repetition trends between boys and girls in this cohort of children.

1992 cohort of children cared for by trained teachers

The 151 children in this cohort should have been in Std 8 in 1999, but of the two schools with trained teachers that were sampled, only nine children (one girl and eight boys) were in the expected class. This represents six percent of the children enrolled in 1992.

Fifty-four percent of the pupils repeated at least one class. The proportion of children having to repeat the previous year was highest for Stds 4, 5, and 6 (39 percent, 38 percent and 43 percent, respectively, of the children in years 1996, 1997, and 1998).

The total number of pupils from this group who dropped out was 31 (21 percent). The number of dropouts was fairly constant across years. Twenty-seven children (18 percent) transferred to other schools, and only two children in this group died. On average, 20 pupils failed to proceed to the next class for each of the years between Std 1 and Std 8.

1992 cohort of children cared for by untrained teachers

From the category of schools with untrained preschool teachers for the 1992 cohort, a total of five children (four boys and one girl) out of the 166 admitted to Std 1 in 1991 were in the expected class in 1999. This represents only three percent of this original group.

The number of children in the early levels who had to repeat is striking.

TABLE 5.4: SUMMARY OF 1992 COHORT CARED FOR BY TRAINED TEACHERS

original number in 1991	at expected level in 1999		transferred		repeated at least one class		dropped out		total still in school 1999	
	number	percent	number	percent	number	percent	number	percent	number	percent
151	9	6	27	18	82	54	31	21	91	60

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Thirty-five children (21 percent) from this group had to repeat Std 1, while 38 (33 percent of the group for 1994) had to repeat Std 2. This group is notable in having no dropouts after Std 4, but 17 children (15 percent) dropped out after Std 1. It would appear that the transition to primary school was very difficult for these children.

Results of KCPE examination

The Kenya Certificate of Primary Education (KCPE) must be passed before a child can go to Form 1. At the end of 1998 only 33 of the pupils in the study had taken the examination: 19 who had been cared for by untrained preschool teachers, and 14 who had been cared for by trained preschool teachers. Their total KCPE scores were cross-tabulated and analyses of variance undertaken. No significant differences were found between the two groups. The scores were also analysed for gender differences, and it was found that performance in the KCPE examination was independent of gender.

1993 cohort of children cared for by trained teachers

Of the 116 children cared for by trained preschool teachers, who started Std 1 in 1993, seven (four boys and three girls) were at the expected level of Std 7 by 1999. Seventy (60 percent) repeated at least one class, with the highest number repeating a class occurring in Std 2. The average rate of repeating a class was 29.5 percent for this group. Twenty-one children from this group dropped out of school, the largest proportion by Std 3.

TABLE 5.5: SUMMARY OF 1992 COHORT CARED FOR BY UNTRAINED TEACHERS

original number in 1991	at expected level in 1999		transferred		repeated at least one class		dropped out		total still in school 1999	
	number	percent	number	percent	number	percent	number	percent	number	percent
166	5	3	42	25	83	50	34	20	88	53

TABLE 5.6: SUMMARY OF 1993 COHORT CARED FOR BY UNTRAINED TEACHERS

original number in 1991	at expected level in 1999		transferred		repeated at least one class		dropped out		total still in school 1999	
	number	percent	number	percent	number	percent	number	percent	number	percent
116	7	6	17	15	70	60	21	18	77	66

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1993 cohort of children cared for by untrained teachers

In this cohort, by 1999 a total of 19 (21 percent) of the pupils had not repeated any class. Forty-seven (52 percent) had repeated at least one class, most repeating Std 1. The average rate of retention for this group was 18 percent. Thirteen children from this group had transferred, 10 dropped out, and none died.

1993 cohort: comparison between the two groups

There were 110 boys and 95 girls admitted to Std 1 in the 1993 cohort. In 1999, there were 26 children at their expected level (13 boys and 13 girls). Overall, the children in the 1993 cohort who had been cared for by untrained preschool teachers seemed to fare better in school. More of them made it to the expected level without repeating, fewer repeated any classes, and fewer dropped out. Again, it is possible that the quality of the schools played a role in this.

Summary of school progression of tracked children

The information given so far shows the progressive retention for specific years and cannot account for the current whereabouts of all the children. It has focused more on children who were in the expected classes over the years and hence shows how the numbers diminished up to 1999. The following aspects are summarized in Table 5.8: enrolment, repetitions, dropouts, transfers and deaths.

Pupils who never repeated a class

Taking all three cohorts together, only 59 pupils (6.5 percent) out of 913 had reached the expected class in 1999 without repeating any levels. If the projected completion rate of the primary school cycle is attained by such a small percentage of the pupils, this portrays a very inefficient education system. It is also a very expensive system, since the majority of pupils take so long to complete the course and many drop out before completing it. It is possible, in addition, that many pupils are discouraged by this system – seeing no chance of ever making it through the primary school cycle.

However, it was very surprising that teachers and head teachers did not

TABLE 5.7: SUMMARY OF 1993 COHORT CARED FOR BY UNTRAINED TEACHERS

original number in 1991	at expected level in 1999		transferred		repeated at least one class		dropped out		total still in school 1999	
	number	percent	number	percent	number	percent	number	percent	number	percent
89	19	21	13	15	47	52	10	11	66	74

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TABLE 5.8: SUMMARY OF COHORTS

	1991 Cohort				1992 Cohort				1993 Cohort				Total			
	trained		untrained		trained		untrained		trained		untrained		trained		untrained	
Status	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Started in Std 1	229	–	162	–	151	–	166	–	116	–	89	–	496	–	417	–
At expected level in1999	5	2	14	9	9	6	5	3	7	6	19	21	21	4	38	9
Repeated at least once	135	59	91	56	82	54	83	50	70	60	47	52	287	58	221	53
Total still in school 1999	140	61	105	65	91	60	88	53	77	66	66	74	308	62	259	62
Total dropouts	61	27	46	28	31	21	34	20	21	18	10	11	113	23	90	22
Total transferred	24	10	11	7	27	18	42	25	17	15	13	15	68	17	66	16

Note to table 5.8: Note: The eight children who died are not included here.

appear to be aware of this depressing situation until the researchers pointed it out to them during the study. Immediate steps need to be taken to reverse this trend through a consultative process with the community and other stakeholders.

Retention

In this study, *retention* is defined as all the children who were still in school in each of the cohorts, including those who had repeated classes and those who had reached their expected level. There were no significant differences between the groups with trained preschool teachers and those with untrained teachers for any of the cohorts. In fact, the proportions of the total number of students from each group who were retained are exactly the same: 62 percent.

In total, out of the 913 children enrolled in the three cohort years, 567 were still in the same schools. The proportion still in school is likely to be higher in actual terms because children who transferred to other schools have not been included. Many of those who transfer go to boarding schools and are likely to still be in school.

TABLE 5.9: WASTAGE BY COHORT

	Enrolment		Wastage			
			Trained		Untrained	
year	trained	untrained	number	percent	number	percent
1991	229	162	196	86	137	85
1992	151	166	113	75	117	71
1993	116	89	91	78	57	64
total	496	417	400	–	311	–

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Wastage

In this study, *wastage* refers to a situation where a pupil either repeats classes or drops out of school. From Table 5.9 it is evident that wastage was extremely high in all schools in all cohorts.

Although the differences are not significant, the wastage rates among pupils cared for by DICECE-trained preschool teachers are consistently higher than those of pupils cared for by untrained teachers. The main reason for this could be that most of the children cared for by untrained preschool teachers were attending primary schools that were rated as having good academic performance, while most of the schools sampled under the trained preschool teacher category were rated as having poor academic performance. This would suggest that the academic rating of a school is strongly correlated with retention rates (see Chapter 7 for an explanation of the academic rating of schools).

Repetition

Table 5.10 shows the number of times pupils repeated a class, for all cohorts. Over 50 percent of all the children in the sample repeated at least one class, with the majority repeating two or more times. There is essentially no difference between children cared for by trained preschool teachers and those cared for by untrained preschool teachers in either total repetitions or the number of times a class was repeated.

Table 5.11 breaks the numbers down by grade level, comparing children by gender and the training of their preschool teachers. There are generally high rates of repetition across all levels; however, there are some interesting observations that can be made. It appears that children who have had trained preschool teachers are better prepared for primary school – the proportion of children who have to repeat Std 1 is almost twice as high for children who had untrained preschool teachers (significant at $p \leq .005$). This difference is especially noticeable for boys. The differences even out in Std 2, but then the reverse is seen in the higher grade levels, where more students who had trained preschool teachers are retained.

TABLE 5.10: PERCENTAGE OF CHILDREN REPEATING A GRADE LEVEL, FOR ALL THREE COHORTS

Number of repetitions	Trained	Untrained
repeated once	18.75	18.46
repeated twice	25.60	20.60
repeated thrice	11.00	10.30
repeated four times	2.40	2.60
repeated five times	0.00	0.90
total repetitions	57.80	53.00

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TABLE 5.11: PERCENTAGE OF CHILDREN REPEATING A GRADE, BY GRADE LEVEL, TRAINING OF PRESCHOOL TEACHERS AND GENDER

Retain'd	Trained		Untrained		Total				
in	boys	girls	boys	girls	boys	girls	trained	untrained	all
Std 1*	11	11	24	16	17	13	11	20	15
Std 2	18	25	19	18	18	22	21	19	20
Std 3	20	15	11	7	17	11	18	9	14
Std 4	29	24	29	30	29	27	27	29	28
Std 5	24	38	16	29	20	34	30	23	27
Std 6	34	28	12	26	25	30	31	19	27
Std 7	28	56	30	38	29	48	41	33	37
Std 8	56	43	21	17	35	23	50	19	28

Note to table 5.11: Percent is based on the number of children counted in the previous year.

*The difference in rates of repetition in Std 1 between children who had trained preschool teachers and those whose preschool teachers were untrained is significant at $p \leq .005$.

It is also interesting to note that the proportion of children having to repeat suddenly jumps at Std 4. Std 4 marks the transition from lower to upper primary, accompanied by a change from mother tongue to English as the language of instruction. This is discussed in more detail in Chapter Six.

Dropouts

Out of the 496 pupils cared for by trained preschool teachers, 113 (22.8 percent) dropped out before completing primary school. Among the children cared for by untrained preschool teachers, 90 out of 417 pupils (21.6 percent) dropped out of school. Although overall there is no significant difference between groups, this is a very high dropout rate, where one out of every five children who enrols in Std 1 drops out before completing primary school. This indicates a serious problem that needs to be addressed.

Table 5.12 compares the numbers of children dropping out in each grade level, by gender and the training status of the preschool teacher. Again, as with repetitions, the differences between the group with trained preschool teachers and the group without is most noticeable in Std 1. The proportion of children with untrained teachers who drop out in Std 1 is six times that of the children with trained teachers. Again, this is a disturbing trend; these children never have a chance to progress any further in their education.

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Transfers

Of the 913 children enrolled in Std 1 in the three cohort years, a total of 134 transferred to other schools. This represents 14.6 percent of the enrolment in the three years, with no significant difference between the two groups. Most of those who transferred to boarding schools are expected to still be in school. This is because of the better learning conditions in boarding schools.

Deaths

The incidence of death was minimal for all schools. Only eight children out of the 913 died.

Summary

The following observations can be made about the data collected in the tracking of these pupils through their primary school cycle:

- The benefits of the ECD intervention seem to have the greatest impact in the first year, that is, in Std 1, after which, they seem to diminish.
- The rates of repetition and dropping out are extremely high in all schools.
- The majority of the pupils who repeat classes do so in Stds 1, 2 and 4. This evidence is corroborated by

TABLE 5.12: PERCENTAGE OF CHILDREN DROPPING OUT OF SCHOOL, BY GRADE LEVEL, TRAINING OF PRESCHOOL TEACHERS AND GENDER

Dropped	Trained		Untrained		Total				
out	boys	girls	boys	girls	boys	girls	trained	untrained	all
Std 1	*	1	5	7	3	4	1	6	3
Std 2	*	2	*	0	*	*	1	*	*
Std 3	2	3	*	2	2	2	2	2	2
Std 4	4	0	3	0	3	0	2	1	2
Std 5	5	3	2	3	3	3	4	2	3
Std 6	5	0	0	0	3	0	3	0	2
Std 7	7	4	4	5	5	4	6	4	5
Std 8	22	14	0	9	9	10	19	5	9

Note to table 5.12: Percent is based on the number of children counted in the previous year.

a. The difference in rates of dropping out in Std 1 between children who had trained preschool teachers and those whose preschool teachers were untrained is significant at $p < .005$.

*Less than 1%.

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information given by teachers and head teachers (see Chapter Eight).

- The majority of the pupils who transfer to other schools do so in Std 5.

- Repetition rates in Std 1 among the pupils cared for by untrained teachers were almost twice those of pupils cared for by trained teachers. This is an important and significant ($p \leq .005$) finding, which indicates that the ECD intervention makes a strong contribution to the academic performance of pupils entering primary school. The transition from preschool to primary school is discussed in Chapter Seven.

Factors influencing repetition, absenteeism and dropping out

Repetition, absenteeism and dropping out constitute wastage within an education system. It wastes the time of both pupils and teachers, as well as money and other resources. A good education system strives to have low rates of repetition, absenteeism and dropping out because, besides constituting wastage, they also have a significant influence on the academic performance of the pupils.

The information in this chapter comes mainly from school records, head teachers, and the focus group discussions with teachers and parents. Those interviewed were asked to rate the ***extent*** of repetition, absenteeism and dropping out in their schools. They were also asked to explain the ***causes*** of absenteeism, repetition and dropping out. For some topics, information has been added from the classroom observations made by the research team.

Factors influencing repetition

As noted in Chapter 5, the repetition rates were found to be highest in Stds 1, 2 and 4. A number of possible causes were suggested and these are slightly different for children repeating Stds 1 and 2 from those repeating Std 4.

In Stds 1 and 2, the main reason for repetition was the difficult transition from preschool to primary school. Children come from preschools where the environment is friendly and learning is through play with learning oriented play materials. At primary school, these children are faced with a learning environment characterized by formal learning, lack of materials and fairly harsh discipline. Lack of textbooks, especially mother-tongue books for teaching literacy skills, exacerbates this situation. Hence, many children end up repeating Stds 1 and 2 because they do not have the literacy skills required for proceeding to the next class.

The data collected in this study showed the largest proportion of children who repeated Std 1 were those cared for by untrained preschool teachers. It appears that the children cared for by trained preschool teachers were better prepared for the transition to the more formal educational system in primary school than their counterparts who were cared for by untrained preschool teachers. The training of teachers had a direct and significant ($p \leq .005$) influence on the success of children in Std 1.

This advantage seems to be lost, however, as children progress to Std 2, where there is no significant difference between the children cared for by trained preschool teachers and those who had untrained teachers.

photo: Mutual concentration, *photo courtesy of Children of Kiwanja Kimaye Child Development Project*

The problem children face in Std 4 is the transition from lower primary to upper primary, which includes the shift from mother tongue to English as the language of instruction, along with a change from having one teacher for all subjects to having different teachers for different subjects. At this level, there is apparently no advantage to having had trained preschool teachers. However, it is interesting to note that the students who had untrained preschool teachers fare better at the higher levels, with lower rates of repetition. This finding is explored further in the discussion on the quality of the primary schools attended.

60

Introduction of English as the medium of instruction

In lower primary, the medium of instruction is the students' mother tongue; in Std 4, the mother tongue is replaced by English. This is an abrupt change for pupils, most of whom have not mastered English well enough to be able to communicate effectively.

Literacy

Most of the textbooks in lower primary have pictures accompanied by a small amount of text – when textbooks are available at all. As already noted, most of the schools sampled had very few textbooks in lower primary, particularly in the mother tongue. The result is that a large proportion of the pupils finish lower primary without adequate literacy skills for the extensive reading and writing required in the upper primary school. The transition to textbooks with a lot of text in English compounds the problem.

More formal methods of teaching

Teaching methods in upper primary tend to be more formal than in lower primary. Pupils are expected to engage much more in formal operations than they were in lower primary classes.

Exposure to multiple teachers

In lower primary, the pupils are taught by only one teacher and, in some schools, the same teacher stays with the children for the entire three years. This arrangement enhances the learning of the pupils because they get used to the teaching methods of the teacher assigned to them. In Std 4, the multiple-teacher arrangement is introduced, where different teachers teach different subjects. This abrupt shift from one to many teachers could be yet another reason for repetition in Std 4.

Opinions of parents and teachers

During the focus group discussions with parents and teachers and in the interviews with head teachers, a number of factors were highlighted as being responsible for repetition.

- Chronic absenteeism and poor performance in lower classes were given as the main causes of repetition by the majority of the participants in these discussions.

- Poor performance in lower primary (Stds 1, 2 and 3) could be due to lack of adequate textbooks.

- Teaching methods were another possibility: (1) poor teaching methods, where teachers give superficial explanations and use few examples to illustrate points; and (2) teaching that is too formal and teacher-centred.

- Lack of learning and play materials, along with a learning environment that does not stimulate the children, adversely affects the active learning capacity of the young children in lower primary. This is an area of grave concern that needs to be addressed.

- Failure to attain the mean score was given as yet another important reason for repetition in schools with good academic performance. For schools to maintain a good academic standard, the head teacher, together with the teachers, decides on the mean score that must be attained by pupils if they are to be promoted to the next class. It appears that the mean score is only emphasized in schools with good academic performance because none of the respondents from the schools with poor academic performance gave this as a reason for repetition. It is possible that the academic performance of the pupils in the poorly performing schools is so low that even when a mean score is set, most of the pupils do not attain it and the mean score does not determine the promotion of pupils from one class to another. This assumption is corroborated by the findings of the research team during their observations of the teaching-learning process in selected schools. In most of the classes observed, pupils' marks were displayed and at the bottom was recorded (in red) the actual mean score of the class based on the performance of the pupils as well as the expected mean score determined by the head teacher and the teachers. In almost all the schools with poor academic performance, the mean score set by the school was far too high when compared with the actual academic performance of the pupils. In some of the schools, the highest scores in all classes were far below the set mean score. For example, one school had set a mean score of 460 for all children in upper primary (Stds 5, 6, 7 and 8) but the highest score attained by the best pupil in all these classes was 390. This phenomenon was characteristic of most schools. In schools with good academic performance, the difference between the actual scores of the best pupils and the mean score set by the school was not as great.

- The issue of the mean score was observed to be a serious problem in all the schools. There appeared to be more emphasis on the attainment of mean scores than on the provision of quality learning for pupils. The majority of the teachers and head teachers, even in schools with good academic

performance, were more concerned about pupils attaining the mean score. Little attention was given to an all-round education for the students. In the majority of the schools, for example, little attention was given to character development.

- The history of a school's performance seems to influence repetition. There were lower rates of repetition in high-performing schools than in the low-performing ones.

- Other reasons mentioned for repetition included sickness, children being sent away from school because levies were not paid, lack of commitment by teachers, poor discipline among students, negative attitude of parents towards education, lack of cooperation between the staff (teachers and head teacher) and parents, and severe discipline (particularly caning) by the teachers.

Who decides whether a child repeats?

In almost all the schools visited, the decision as to whether a child should repeat a class was found to be the prerogative of the class teachers. Most of the parents had absolutely no say on the issue. They were not consulted; the pupils were informed of the decision to repeat by the class teachers. The majority of parents were extremely unhappy with this arrangement. They felt very strongly that they should not only be consulted but they should be the ones to make the final decision as to whether their children repeat or not. It was only in one school (with good academic performance) that parents were allowed to make this decision. The class teachers make recommendations about those who should repeat, and the parents are left to make the final decision. If the parent refuses, the pupil is allowed to continue. In this same school, some of the parents said that they are the ones who had suggested to a class teacher that their children should repeat because of poor performance. It is interesting to note that this school has remained the best in academic performance in the zone for a long period. It is also one of the best schools in the district.

What still remains unanswered is whether repetition improves the academic performance of pupils.

Gender differences in relation to repetition

The parents' focus groups said that there is no difference in repetition between boys and girls. The teachers and the head teachers said that there is a difference. About half the teachers and head teachers said that boys repeat more, while the other half said girls repeat more. Those who gave the latter response argued that there are more girls than boys in all classes so that more girls are likely to repeat. The reasons given for higher repetition rates among the boys included absenteeism, truancy and bad influences from the environment (for

2 *Chang'aa* is a common illegal drink in Kenya made of a mixture of various products, including sugar, sugarcane juice and sometimes fruit. The mixture is distilled and hence has a very high alcohol content. It is highly toxic and intoxicating.

example, hanging out with peers who are not in school, brewing *chang'aa*,[2] selling *miraa*[3] and frequenting slums and markets). Their academic performance is adversely affected; hence, they have to repeat classes.

However, in looking at the proportions of children who repeat (see table 5.11), broken down by gender, there is no significant difference in the rates of repetition between boys and girls in the lower levels. Where the differences become striking is in the higher levels, where a higher proportion of girls are retained. Again, the differences seen in the retention rates of children who had trained preschool teachers and those who had untrained teachers could be related t the academic rating of the schools the children attended. The most marked difference is the low rate of repetition in Stds 5 and 6 of boys who had untrained teachers, compared to other children at those levels. However, the numbers are too small to indicate a significant trend.

Factors influencing absenteeism

The majority of participants in the discussions mentioned illness, particularly malaria, as one of the main causes of absenteeism.

The second largest number of participants mentioned the failure to pay school levies. As already noted, this constitutes one of the major reasons for children being absent from school, repeating classes and, finally, for having poor academic performance. Poverty and mismanagement of the levy by the head teacher were given as the reasons for parents failing to pay the levies.

The third main reason for absenteeism given by the participants was involvement in casual labour, which appears to be a very serious problem, particularly for boys. The pupils are involved in such activities as tea and coffee picking, logging in the forest, cultivating and selling in the markets. At times, it is the parents who keep their children out of school to engage in these activities. In other cases, children do it on their own. Sometimes parents are not aware that their children are not in school.

One of the head teachers cited a new problem, which is that of the children being brought up by grandparents. He said that such children are absent from school very often because the grandparents are not strict with them. The number of children being cared for by grandparents has continued to rise, according to the head teachers, due to the increasing number of teenage pregnancies. Many of the teenage mothers are forced to take up employment far away from home in order to be able to support their children. The majority of these mothers are employed as household help, and most of the employers do not allow them to be accompanied by their children. The

3 *Miraa* are leaves that when chewed have a soporific effect. They are also called *qat*.

young women have to leave their children with their mothers and are able to visit at most once a month for only one day. The salary for household help is often too meagre to support the mother and her children. The responsibility of caring for these children therefore rests solely on the grandparents, most of whom are busy trying to earn a living for the rest of the family. The busy schedule of the grandparents could be one of the reasons they are not able to provide quality care for the children left with them.

Other reasons for absenteeism mentioned by some of the participants included the negative attitude of some parents towards education, peer-group influence, poor relationship between teacher and pupil/parent, lack of textbooks, influence of the slum environment and markets.

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Factors influencing dropping out of school

The high rate of repetition was cited by most of the focus groups as the major factor behind pupils dropping out of school. Those interviewed – particularly the parents – said that when pupils are made to repeat classes many times, they tend to give up. They lose their motivation for learning, and their academic performance declines even further. Some of the pupils reach maturity while still in primary school. They are forced to learn in the same class with very young children who may sometimes be their own brothers or sisters. This is demoralizing and erodes their self-esteem. When this happens, many pupils prefer to quit school for good.

Bad influence from peers, particularly those who are not in school, was cited in six of the groups as another factor for pupils dropping out of school. This applies more to boys who are lured by their peers to drop out of school, many of them are lured by money. Their peers tell them that one does not need to be educated to earn good money through casual jobs like logging in the forest or selling *chang'aa* and *miraa*, for example. A pupil who has been made to repeat several times and whose motivation for learning is already low, may easily fall prey to such influences. This is the main reason the majority of parents were against the continuous repetition of classes by children.

The failure of parents to pay school levies was given in seven focus groups as a reason for some children dropping out of school.

Some of the parents (three groups) and the head teachers cited the negative attitude that some parents have towards education as a factor contributing to children dropping out of school. Such parents kill their children's motivation for learning, their children are not interested in schoolwork and, therefore, do not put much effort into it.

In four groups, the parents also attributed dropping out of school to severe

punishment, especially caning, by the teachers. These parents said that some teachers are very cruel and beat pupils severely. Some children decide they cannot take it any more so they quit school. Even though the Education Act prohibits severe caning of pupils by teachers, and although the teachers know they can be taken to court and accused of child abuse, many continue the practice. They know that the majority of parents are not aware of this law and will therefore never take them to court. Even when parents know that their children are constantly caned, they dare not confront the teacher for fear their children will be victimized or sent away from school for good. Many parents prefer to keep quiet.

Lack of discipline among the pupils resulting in truancy was mentioned in eight groups. Engaging in casual jobs, drinking, smoking, chewing *miraa*, prostitution and early pregnancy among the girls were cited by a few of the participants as other causes of pupils dropping out of school.

In one of the schools, the parents and the head teacher blamed the fathers for the children dropping out of school. These parents argued that some of the fathers drink heavily in the presence of their children. They not only provide a poor role model, but have no time to give moral guidance to their sons. In most cases, boys from such families copy their fathers and start drinking very early. Such behaviour may lead to truancy, poor academic performance and, finally, to dropping out of school.

The impact of aids

A major contributor to absenteeism and dropping out of school that was not mentioned by discussion group participants is the AIDS epidemic. The problem is complex, and there is a great deal of denial. When a parent – especially the family's main breadwinner – becomes ill with AIDS, the family must make severe sacrifices. A recent report indicates that one area of sacrifice is in school fees:

> *A child's schooling may be temporarily interrupted by a shortage of cash occasioned by spending on a parent's ill-health or by periods of work in the home to help sick parents. By the time children are actually orphaned, they are likely to be over-age for their class, even if they are still in school . . . Being older than their classmates was in turn associated with a higher rate of dropping out of school . . .*
> (UNAIDS, 2000: 30)

The greatest proportion of people who become infected with AIDS are young adults – people who typically have families of young children to care for. This means that the numbers of children who are orphaned is creating a serious problem worldwide. In some African countries, the proportion of children who have lost one or both parents to AIDS is as high as 11 percent (UNAIDS,

2000: 28), which results in more and more children being cared for by grandparents or completely on their own:

> *Households headed by orphans are becoming common in high-prevalence countries. Studies . . . have shown that following the death of one or both parents, the chance of orphans going to school is halved and those who do go to school spend less time there than they did formerly.*
> (UNAIDS, 2000: 27)

The rate of infection in adults in Kenya is estimated at close to 14 percent, and in 1999, it was estimated that just under 550,000 children in Kenya had lost one or both parents to AIDS (UNAIDS/ WHO, 2000). Embu District is in an area judged as high risk: a study that sampled a representative portion of the population showed an infection rate of 20 percent among pregnant women tested for HIV/AIDS between 1997 and 1999 (UNAIDS/WHO, 2000).

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KISWAHILI

Academic performance

Influence of training of preschool teachers on academic performance

In this study it was hypothesized that the training of preschool teachers would be significantly related to children's academic performance. One of the main objectives of the study was to assess the academic performance of children who had been cared for by trained teachers and compare it with the performance of children who had been cared for by untrained teachers.

Information was collected on the position in class, total marks (converted into percentages) and rank in class of children in all the sampled schools. *When the data were analysed, it was found that the training status of preschool teachers had a significant effect ($p \leq .005$) on the academic performance of primary school children when it was correlated with the academic standing of the school.* In other words, children who had been cared for by trained preschool teachers and who were enrolled in schools with high academic standing did significantly better than children who had untrained preschool teachers or children from either group who were in academically poor schools – especially for the first four years of primary school.

In looking at the effect of training alone, the results were not so clear. This could be because of the inconsistency of school records and the resulting lack of reliable data. It is also possible that better schools keep better records.

Over time, it appears that the influence of the preschool teacher washes out, declining as the children progress through school. This confirms the trends found by earlier researchers elsewhere. However, our study indicates that the influence continues – although to a lesser extent as the child grows older – if the child is enrolled in a good school.

The small number of children who took the KCPE exam in 1998 makes it difficult to determine if there was any influence from the training status of their preschool teachers on their performance in the exam. What made these children different from all the others in their cohort who registered in Std 1 at the same time they did? The researchers can only conclude that these children made it through primary school through sheer hard work.

Three crucial factors

The research team identified three factors that could contribute to the apparent lack of differences in the influence of trained and untrained preschool teachers on children's academic performance.

Short courses

The DICECE trainers informed the research team that one of their main activities is conducting short courses for untrained preschool teachers. Prior to

photo: Formal 'talk and chalk' teaching methods in a Standard 4 classroom, Embu, 1999, *photo: Johnson Mwangi*

1991, the short courses consisted of one- to two-day workshops for untrained teachers. After 1992, the National Centre for Early Childhood Education (NACECE) developed a systematic five-week short course for untrained teachers. The majority of the untrained teachers in the sample had attended at least one of the two types of courses. This means that they were exposed to ECD experiences even though they had not attended the two-year DICECE training, and the children they were caring for benefited from this exposure.

The multiplier effect

In Embu, trained teachers are encouraged by the DICECE trainers to assist untrained teachers in aspects of ECD. For example, if there are untrained teachers at their school, the trained teachers spend afternoons (when children go home) sharing the knowledge and skills they acquired during their DICECE training with these untrained teachers. They cover various aspects of ECD, including child-centred methods, the importance of play, how to develop and effectively use learning and play materials for enhancing the learning of children, classroom organization and management, lesson planning and schemes. As a result, many of the untrained teachers end up acquiring a great deal of knowledge and skill in ECD long before they attend the two-year DICECE training. This would minimize differences between DICECE-trained teachers and untrained teachers – and their impact on the children in their care.

Preschool teachers' panels

As already mentioned, the preschool teachers in Embu have well-organized panels at the zonal level, which serve as a training ground for untrained preschool teachers. The trained preschool teachers spearhead the activities of the panels by sharing their knowledge and skills in ECD with their untrained counterparts. Consequently, the untrained teachers acquire knowledge and skills in ECD, which would minimize the differences between the trained and untrained teachers.

Factors other than ECD intervention that influence academic performance

The analysis did not show any differences between boys and girls, in either school performance or KCPE performance. Focus group discussions and interviews with teachers, parents, head teachers and education field officers suggested other factors that are more significant than gender in influencing academic performance during the primary school years. These factors are discussed below.

The school's academic standing

It was hypothesized that children who enrol in schools with good academic performance do better than those who enrol in schools that are rated as poor. In an attempt to determine the impact of the school's academic rating on the pupils' performance, the schools were divided into two categories: those with a high academic rating and those with a poor academic rating.

The categorization of the schools was done jointly by the DICECE trainers, zonal school inspectors and the research team. The schools were compared with others in the same educational zone, and the past results of the Kenya Certificate of Primary Education (KCPE) examination were also used to rate the schools. Using these criteria, eight of the schools were categorized as good performers while the other 10 were categorized as poor.

During the interviews and in the discussion groups, the research team asked the head teachers, teachers and parents to categorize their schools as 'good' or 'poor' in relation to academic performance. Two important findings emerged:

- There was complete agreement between the rating of the research team and the ratings of all interviewees, which included the parents, teachers and head teachers. The schools rated good by the research team were also rated good by those interviewed and vice versa.

- In all the schools, all three participant groups – head teachers, teachers and parents – gave the same rating for the school.

This is an important finding, especially in regard to parents. It shows that the parents are aware of what happens in the schools in which their children are enrolled. This awareness is a major resource that could be tapped for the improvement of school-based programmes.

SCHOOL PROFILES

School A, with 740 pupils and 25 teachers, is located in the middle zone in an essentially agricultural area on an all-weather road.

The research team visited without prior announcement, but the administration's response to the visit was overwhelming. We were particularly impressed by the school's neat compound and classrooms. It was a nice place to be, well organized and the new head teacher was in control. The school, whose past was considerably unpleasant, had managed to effect major improvements and this was clearly evident.

Children were clean, tidy and serious with their work. Children were well-behaved and a recent influx of drug-taking (*miraa*) had effectively been checked. The pupils were also motivated and determined not to let their parents' efforts down. One could not help noticing how keen they were in their work. English and KiSwahili were the standard languages for the upper school, which we felt was a major

achievement for a rural school. The relationship between pupils and teachers was quite warm and friendly.

Teachers were committed to their work and keen about their pupils' academic performance. The school was visited at the height of the nationwide teachers' strike, an important reason the research team could not help noticing the cohesiveness of this group. The entire community and parents were keen to support the school and the head teacher in his efforts of restoring this school.

School B, deep in the interior of Embu, is in an isolated position owing to the poor transport infrastructure in this part of the district. During the rainy season, the area is virtually inaccessible. Most people are peasant farmers who depend on subsistence farming for their livelihood. There are 413 pupils and 15 teachers.

Most buildings are semi-permanent, especially the lower classes, and the setting of the various blocks is haphazard. The preschool is in an old neglected shelter.
72 The school is disorganized and untidy and the classrooms are dusty.

Behind the physical disorder lies an even worse scenario. Recently, parents forced a headmaster to be transferred because of dissatisfaction with his management methods. The research team was received by the deputy head teacher – the new head teacher had yet to report. Through leadership, to the community, the staff and the pupils – all seemed to be unwell.

Among the staff members themselves were deep-rooted personality differences. The relationship between staff members and the surrounding community also left a lot to be desired. Suspicions and unnecessary rivalries had been extended to the school, making it an arena for ugly incidents. As a result, parents have developed a very low opinion of the teachers who were blamed for providing negative role models for pupils because some of them are known as habitual drunkards in the neighbourhood. Although parents seemed to have a genuine concern for their school, they did not like the mess already there.

In such circumstances, the children end up being victims. Repetition, absenteeism and dropping out were rampant. The performance of the school in national examinations is worrying. Huge dropout rates lead to idle youths, which has led to a deteriorating state of security in the area.

School C, situated near a main urban centre along a main highway, has 310 pupils and 18 staff members. There is also a preschool section and a special-education class for the mentally handicapped.

The resources available in a school normally indicate the level of a school's academic performance. However, despite the good physical facilities available, the good infrastructural developments in the area and a large team of trained teachers, this school was found to be behind in many areas. The organization of the school was poor. Academic performance was also poor, and the children lacked positive personality traits.

The head teacher was rarely available in the school which, of course, did not sit well with the teaching staff. The deputy was often overloaded with administrative tasks. Due to the ineffective administrative system, most of the school schedules were not followed. The parents also seemed dissatisfied with the manner in which the school was being run.

Pupils were untidy and generally lacked good discipline. Going by those interviewed, most were shy and could not communicate confidently. Mother tongue was the main language used in upper primary because the children were hardly able to communicate in English. The children also seemed to lack respect for visitors. Repetition and absenteeism were rampant. Many students seemed to lack enthusiasm and zeal for learning. This was surprising as the families from which they came were relatively stable socio-economically.

It was depressing to see the rate at which this school, which is endowed with almost ideal learning conditions, is deteriorating. It is a school with the potential to bask in academic glory.

School D in lower Embu has 652 pupils and 21 teachers and there is also a preschool section. Farming is the main occupation of the surrounding community but, because of low rainfall, people are not well-to-do economically. The area is served by a transport network that is only reliable during the dry season.

Most of the buildings are permanent. Given the low socio-economic status of the community, it was easy to deduce that quite an effort had been made to realize these achievements. The school was also well fenced, and generally everything seemed to be in place.

This is one of the few schools we visited headed by a woman and most of the achievements had been realized during her tenure. She explained that the first thing she had done was to create a working relationship between the community and the school. This involved the creation of awareness of the roles that each was expected to play. The community now fully appreciated their participation in school affairs and had been very supportive in the projects that had taken place in the school. Parents also appreciated their roles in guiding and providing for the children's school needs.

Teachers seemed motivated and carried out their duties with firm dedication, they related quite well with one another and worked as a team. The teacher-pupil and teacher-parent relations were also good. The number of children repeating a grade or dropping out had decreased tremendously.

Most children were smart and very tidy, the majority were able to communicate in English and KiSwahili. They seemed eager to learn and most had high hopes for their future. Order was an outstanding feature observed in this school and the children were exceptionally well behaved. The school time schedule was punctually followed. Children carried lunch, which meant that their day was uninterrupted.

At the end of the day, we felt that a lot could be learnt from this school, especially in the area of management.

Reasons for a school's good academic performance

The head teachers, teachers and parents in the 'good' schools were asked to give their reasons for believing that their school was performing so well. Once again, there was agreement among all the participating groups. They all cited the following as instrumental for the academic excellence of the school:

- cooperation between all the teachers, including the head teacher
- cooperation between the parents and the teachers
- the hard work and commitment of the teachers
- the availability of textbooks for both the children and the teachers

Cooperation among the head teachers, teachers and parents was mentioned over and over by all the participants as being the main criterion for good academic performance in schools, as the two examples below illustrate.

From the information collected in the focus group discussions and the observations made by the research team,

it is evident that the head teacher is a very important factor in the performance of a school. Where the head teacher is committed and is a good manager, he/she is able to forge team spirit among the parents, teachers and the pupils. He/she creates confidence in the team. This enhances the success of the school.

In one of the schools, all the focus groups mentioned the availability of lunch for all pupils as an important factor contributing to good performance. In this school, the head teacher was said to be very strict on issues of lunch. There is a regular check by the teachers to ensure that all the pupils bring lunch. Any parent whose child fails to bring lunch is summoned by the head teacher to his office. The participants from this school felt that a good diet enhanced the concentration of pupils, resulting in better academic performance.

The teachers and head teachers underscored good discipline among pupils as another important factor contributing to good academic performance. In two of the schools, the head teachers and the teachers said that the tradition set as a result of good academic performance by past pupils remains a major motivating factor for those who come after. The pupils feel that they are

EXAMPLE 1

Good head teacher and committed teachers (comments of parents)

We have a very committed head teacher. She tries all she can to instil good discipline to the children. She even goes to the video shops to ensure that no pupil is there. She does not allow children to go selling in the markets. She says that selling in the markets is the work of parents. We also have very good and committed teachers. That is why the academic standard in this school is good.

EXAMPLE 2

A good head teacher (comments of parents)

We have a very good head teacher. He feels for the parents. He is very understanding. He allows dialogue and discussion. He is not like the one who was here before. A few years ago, our school was doing very poorly. Then we got this new head teacher. We feel like we have been sent a saviour. We are very grateful to God for hearing our prayers. Now there is good pupil discipline. There is now good cooperation between the head teacher, teachers and parents. There is development in the school. The performance of the school has gone up because of this head teacher.

in a good school and they work very hard to maintain the standards set by their predecessors. The teachers also motivate the pupils by telling them that they must maintain the school's tradition of academic excellence.

This information on the factors that influence the good academic performance of a school was further reinforced by what participants said that they liked about their school. For example, the teachers in one school said,

> *Our school has set the tradition of good academic performance. We have remained, for example, the best school in this zone in mathematics. We work hard to retain this title.*

The majority of participants from poorly performing schools said that they did not like the poor performance – and this response was given by all those interviewed: teachers, parents and head teachers. Unfortunately, none of the participants appeared to be doing much to make improvements. Among all those interviewed, the parents appeared most concerned about the issue, but they felt helpless. They believed that it was only the head teacher and the teachers who could change the situation.

Reasons for poor academic performance

The head teachers and the focus groups of teachers and parents suggested a number of factors responsible for poor academic performance, including lack of textbooks, chronic absenteeism, teachers who are not committed and who, therefore, do not cover the syllabus, poor cooperation between parents and teachers, negative influence on pupils from their parents, and poor discipline among pupils.

Textbooks

Lack of textbooks in the schools was related to the refusal of parents to pay school levies. The parents in these schools said that they refuse to pay the levies because the head teachers either misappropriate the money or do not enforce the payment for all parents. The parents insisted that if they were assured that the money they pay would be well used, and if all parents were made to pay, they would definitely pay the levies.

Every serious pupil has a goal to excel academically in all the subjects taught. Textbooks in all subjects are very important because they enable the pupils to do their homework, to study for examinations, to have something to refer to as they learn, to practice for numerical subjects and to have general reading material. Textbooks also make the work of an effective and serious teacher much easier. For pupils in rural areas, the importance of textbooks is even more profound because they are the only likely source of information. Reading materials are scarce in such settings. Hence, textbooks are crucial to learning and are

instrumental in the overall academic performance of the pupils.

This study revealed that there were differences and variations in availability of textbooks among different subjects for different schools. In the schools rated as poor, it was clear that textbooks were grossly insufficient. Out of the 10 poorly rated schools, there were only three where each pupil had his/her own copy of the textbook in at least one subject out of all the 13 subjects taught. In the other seven schools, large numbers of pupils, often more than five, had to share a single textbook in the majority of the subjects. Sharing textbooks is difficult because in many schools pupils sit at narrow desks arranged in rows and sometimes the furniture cannot be moved around. Individualized homework is also impractical in such a situation.

Absence of mother-tongue books is a serious problem because literacy is supposed to be introduced in the mother tongue, which is the medium of instruction in the preschool and in the first three classes of primary school. Another problem with the mother-tongue books in the schools studied is that most of these books were in Gikuyu, while the teachers and pupils in Embu speak the KiEmbu dialect.

Overall, the availability of textbooks in the high-rated schools was better than that of the poorly rated ones in corresponding subjects. The ratio of pupils sharing textbooks was generally much smaller than in the poorly rated schools. Mathematics, English and KiSwahili were generally well supplied with textbooks, particularly in the upper primary classes.

The following is evident:

- Low-rated schools have a poorer supply of textbooks than do high-rated schools. This could indicate poor management and inadequate parental support for the schools, which are also factors that influence academic performance.

- The supply of textbooks is better in upper primary than in lower primary. This may be an indication of the importance parents and schools place on passing the KCPE exam.

- Poor management of funds and lack of creativity in providing storage in the schools are also factors responsible for the poor supply of textbooks. The books would last longer and be more affordable if they were purchased in bulk and the school owned them. As part of their life skills, students could also be trained to take better care of books and to repair them.

- The subjects best supplied with textbooks are English, mathematics and KiSwahili, showing the importance

attached to these subjects, not so much for going on to secondary schools, but for training institutions and higher education later.

Absenteeism

The chronic absenteeism mentioned by all the respondents was said to be related mainly to the failure of parents to pay school levies. When parents do not pay the levies, the pupils are sent home. Some of them end up staying at home for a long period. By the time they come back to school, they have missed so many lessons that they perform poorly.

School levies

The issue of school levies is a major factor that leads to other problems that result in poor performance. Many parents said that they are not motivated to pay school levies because some of the head teachers do not use the money properly and others do not equally enforce payment from all parents.

Parental attitudes and behaviour

There was a general view from all the respondents that the attitude of parents towards education had a strong influence on the academic performance of their children: parents with a negative attitude had an adverse influence on their children's performance. Participants in this study said that some parents tell their children that education is useless because one can no longer get a job after completing school. A number of parents go further and tell their children that they cannot make the sacrifice needed to pay the high secondary school fees when they know that at the end, the children will not get jobs. The participants argued that children who are told this lose their motivation, knowing that even if they pass well, they will not go to secondary school. There was a general feeling from all the participants that this negative attitude needs to be addressed quickly through awareness meetings in order to improve school performance.

In addition, some of the parents, particularly the fathers, were said to set a bad example for their children. Many men were said to spend long, idle hours at the market places. Some of them drink cheap, illicit brews, and it is not easy to motivate their children to behave otherwise. In any case, such parents generally do not have the money for school levies since they are not productively employed and spend what little money they do have on drink.

Influence of the environment

The influence of the local environment was also cited by the majority of the participants as contributing to the poor academic performance of pupils. Videos; brewing illicit liquor, selling it and drinking by the children; smoking and bad peer influence were all said to contribute to poor academic performance. Many of the children, especially boys, were also said to be engaged in casual work. This involves working on the farms picking coffee and tea, logging in

the forests, working in kiosks and being *matatu*[4] touts. These activities tend to take children away from school, resulting in frequent absenteeism or even dropping out of school altogether. The majority of the study participants said that it is wrong to expose children to money too early because it interferes with their academic performance.

Poor discipline

Poor discipline among the pupils was also cited in five groups as a major factor contributing to poor academic performance. This could be a result of poor discipline at home, indulging in *chang'aa* drinking and smoking, and poor teaching methods in the schools. The absence of fathers from home, through employment away from home or by idling in the market places, often leaves the total burden of disciplining the children to the mothers. Women have many chores to perform and therefore may not have enough time to spend interacting with and guiding children. Also, women may find it difficult to guide adolescent boys because of cultural beliefs that disciplining and guiding adolescent boys should be done by men.

Repetition

In one of the schools, the parents cited high repetition rates as a major cause of poor performance. When there are very high rates of repetition in a school, pupils learn under stress. They are constantly in fear that they may fail and be made to repeat. Such stress may adversely affect the performance of even academically gifted pupils. This may be one explanation of the very high repetition rates recorded in the majority of the poor academically performing schools.

Tradition of poor performance in schools

One of the focus groups of teachers attributed the poor performance of pupils in their schools to the tradition of poor performance. These teachers argued that when children enrol in a school that has a history of poor academic performance, they tend to feel that they will also fail. This feeling may sap their motivation for working hard and dampen their initiative and drive for success. A feeling of hopelessness may creep in. Pupils may feel that no matter how hard they work, they will fail just like the others before them. They stop working hard and succumb to fate. Pupils who go through such emotions are also bound to fail. The teachers argued further that the tradition of poor academic performance is harder to break than the tradition of good academic performance. They said that it requires a strong head teacher with excellent management skills to recreate the self-esteem of pupils, teachers and parents in a poorly performing school.

Lack of teachers' commitment

Ten of the focus groups also blamed poor performance of the school on lack of commitment by teachers. This factor was echoed by a number of head teachers and some of the teachers. Many

4 *Matatus* are privately owned, public transport minibuses commonly used in Kenya. The vehicle, popularly known as a *matatu*, has a smaller seating capacity than a bus, usually with a maximum of 20.

teachers were blamed for teaching without being adequately prepared. Some did not even bother to complete the syllabus.

This was corroborated by the observations of the teaching-learning process made by the research team in selected schools. Some of the teachers observed did not appear adequately prepared for the lessons they were teaching. Many of them had neither lesson notes nor lesson plans. Where textbooks were available, the teachers relied fully on them for teaching; no additional examples were given to make the content clearer to the pupils. If the teacher was, for example, teaching a new concept in mathematics, he/she only used the examples in the textbook. The pupils were then asked to proceed with the exercises given in the textbook regardless of whether or not they had understood the few examples given.

Other teachers were found teaching using examination papers. In one of the schools where this was observed, the teacher was the only one with the examination paper. He read out the questions and pupils were expected to give answers. Pupils were expected to listen not only to the question, but also to the four possible answers given in the examination paper. This proved a very difficult task for most of the pupils. Consequently, the majority did not attempt to respond. The few who did respond ended up giving the wrong answer in most cases.

The lower primary school learning environment was not at all child-friendly in most of the schools observed. The teachers used formal 'talk-and-chalk' methods of teaching. There were hardly any learning and play materials to enhance learning. Very few children had textbooks. The issue of the poor transition from preschool to primary school was obvious in these classes. Children who had spent two years in preschools, learning in very rich and stimulating environments full of learning and play materials, are abruptly faced with formal learning methods devoid of learning and play materials and other forms of stimulation. They are expected to switch from concrete operations to formal, abstract operations. The research team felt strongly that such unstimulating learning environments may adversely affect the academic performance of the pupils and lead to higher rates of retention in lower primary classes. It is not surprising that most of those interviewed said that children often repeat classes.

Gender differences in academic performance

During the interviews and focus group discussions, the parents, teachers and head teachers were asked whether there were any differences between boys and girls in relation to academic performance. There was some consensus among the participants that girls tend to perform better than boys in academic work. This view was, however, not supported by the analysis of KCPE results, where there

were no significant differences in the sample, although the mean for boys was slightly higher.

Study participants said that girls perform better in academic work because they are more motivated and better disciplined and they concentrate more in the teaching-learning process than boys. The participants also argued that since in most schools, girls tend to perform better than boys, the example of past performances by girls acts as a motivating factor. The girls who excel become role models for other girls who are determined to do well; hence, they work harder and give total concentration to their studies.

The girls were also perceived to be better performers because they are more disciplined. They obey the teachers, they are attentive during the lessons and they do their homework well. The teachers and the head teachers underscored the good discipline among the girls by adding that they are not involved in the truancy that is characteristic of many of the boys. The main cause given for the poor academic performance of boys was truancy at a very early age.

A few of the teachers and head teachers reasoned that girls could be seen to be performing better because they outnumber the boys in most schools. In almost all the schools sampled for the teaching-learning observations, the girls outnumbered the boys by far. In some of the schools, girls constituted about two-thirds of the school population, especially in the upper levels. However, it is interesting to note that this was not the case in the groups of cohorts that were studied, where the numbers were almost equal.

For some reason, the teachers and head teachers had more to say than the parents about the perceived poor performance of boys. A few of the study participants argued that boys are not well motivated in school work and are more vulnerable to bad peer influences than the girls. A number of the boys were also said to engage in activities that distract them from studying hard while at home, for example, playing cards, karate, watching and/or playing football. Participants felt that boys generally spend less time studying than girls, hence their poorer performance.

Summary

The following observations can be made concerning academic performance of the children.

- The highest benefits of the ECD intervention are evident when the ECD experience is coupled with schools with good academic performance. Children cared for by trained teachers who then enrol in schools with good academic performance tend to perform better than those who are cared for by untrained teachers and who enrol in similar schools. This is a significant finding ($p \leq .005$).

- Three factors were identified that could contribute to the apparent lack of differences in the influence of training on the children's academic performance: short courses and preschool teachers' panels aimed largely at the 'untrained'; and the multiplier effect.

- There was complete agreement between head teachers, teachers, parents and the research team as to whether a school's academic performance was good or poor. The main reasons for this were seen as: cooperation between teachers/head teacher; cooperation between parents and teachers; hard work and commitment of teachers; and availability of textbooks.

- Parents felt themselves to be helpless and believed that it was only the head teachers and the teachers who could change the situation in a school.

- Parents' attitude towards education was viewed as having a strong influence on their children's academic performance.

- Although respondents believed that girls performed better academically than boys, the study found no significant differences in performance.

- The study did find that boys tend to drop out of school and to repeat grades more than girls. The main reasons seem to be boys' tendency to play truant and undertake casual labour to earn quick money. A boy who is forced to repeat classes may see this work as a better alternative than staying in school. In contrast, girls are more obedient and tend to conform better to rules and regulations. They do not have as wide a range of alternatives to school as the boys do, and consequently, truancy among girls is less pronounced.

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Child factors affecting academic performance

In order to compare the development of personal qualities of pupils cared for by DICECE-trained teachers with those cared for by untrained teachers, the primary school teachers were asked to rate the pupils using the following categories: social skills, confidence, self-esteem, personal presentation (neatness and cleanliness), verbal expression and demeanour, and cognitive characteristics. A sub-sample of 322 children was selected of whom 153 had been cared for by trained preschool teachers and 169 had untrained teachers. These children were also interviewed by the research team.

Influence of the training of preschool teachers on personality development

For most characteristics, no differences were found between pupils who had been looked after by trained teachers during the preschool years and those cared for by their untrained counterparts. In only three characteristics – helpfulness, integrity and kindness – did children cared for by trained teachers rate higher.

The majority of boys were quite confident and independent. This was clearly seen in the way they answered questions during their interviews. They also tended to be respectful and polite as indicated in their decorum when addressing visitors. In general, the boys were outgoing and ambitious and very optimistic about life. Those who exhibited traits of shyness, dependence or indecisiveness were in the minority. The girls tended to give an impression of responsibility, as seen in the manner in which they took care of themselves. During their interviews, they portrayed themselves as being honest, friendly and outgoing. It was generally easier to deal with the girls than the boys because of their friendly nature and, because the girls were also more outgoing than the boys, it was easier for them to interact with the research team.

In general, the boys seemed to be more independent, confident and respectful, while the girls had more characteristics of friendliness and honesty when interviewed. The boys were rated as having more emotionally stable behaviour than the girls.

During training, teachers learn the importance of developing social skills in children and helping them learn to relate better with others. Teachers also learn how to enhance a child's self-confidence, which is important for healthy relationships. The trained teachers could have paid more attention to these characteristics in the children than untrained teachers. Primary school teachers may have continued to reinforce these qualities, since they would most likely contribute to the creation of a friendly atmosphere in the school.

photo: Weighing the baby, one of the elements of growth monitoring, Machakos, 2001, *photo: Joanna Bouma*

Other factors that influence personality development

There are, however, many other factors in the school and home that influence the development of a child's personality. The researchers attempted to learn the qualities that head teachers, teachers and parents expected the children to have acquired by the end of the primary school cycle. This was an important question because it is anticipated that head teachers, teachers and parents would help children to develop the qualities they expect them to acquire. As caregivers, they are able to focus on the development of the qualities they think are important in the development of balanced and well-rounded individuals.

There were no differences between the responses of head teachers, teachers and parents from good schools and from poorly performing schools on the qualities they would like the pupils to develop. In fact, there was a high level of agreement. The focus groups said that they would want the children to be respectful, honest, responsible, self-disciplined, self-reliant, trustworthy and of good moral character, sociable or able to get along with others.

For some reason, none of the head teachers mentioned obedience, but both teachers and parents emphasized obedience as an important quality that they would want the pupils to develop. The reason for this could be that generally the authority of head teachers is rarely questioned. Many children obey head teachers out of fear while they (children) may feel freer to question the authority of parents who may not be as strict as head teachers.

Other qualities mentioned by the focus groups included tidiness, cleanliness, kindness, diligence, leadership, courage and determination; being God-fearing, hardworking and knowledgeable; and having high aspirations and ambition.

It is evident that the parents, teachers and head teachers mainly emphasized those personality characteristics that require conformity to rules and regulations. While these characteristics are important for the proper functioning of society, other qualities such as creativity, ambition, risk taking, questioning minds and imagination – which these participants hardly mentioned – are extremely important. These are the qualities that help to bring about change in the lives of the pupils, their families, schools and society as a whole. It is important for the teachers and the parents to be aware of these qualities and to cultivate them in the pupils in order to ensure that they participate actively in helping Kenya to realize its goal of industrialization by the year 2020.

Gender differences in parental and teacher expectations for pupils

A further question to participants was whether they would emphasize different

qualities for boys and girls. All of them said that the qualities they would want developed are the same for boys and girls.

In one of the schools, however, the focus groups for both teachers and parents felt that there are slight differences in the *reasons* certain qualities should be emphasized for boys and for girls.

The teachers said that good morals should be emphasized for boys and girls for different reasons. The boys should be trained to behave well in order to avoid emptations from peers towards such vices as drinking, smoking and truancy. The girls should be trained to have good morals so that they do not go to the bars or loiter in market places and towns, as they may end up as prostitutes. They also emphasized that girls should be encouraged to succeed in education. They argued that girls are more delicate and vulnerable than boys: they can fall prey to early seduction by older men and become pregnant. The focus groups said education empowers girls to know their rights and to stand up for themselves.

The parents in the same school said that the girls should be trained to be self-reliant and responsible so that they can give guidance to their husbands and children. These parents argued that a mother is instrumental to the success of the family. They said,

> *Many problems we are having with children today can be solved by raising responsible and self-reliant girls so that when they grow up, they become good mothers.*

The same parents emphasized that boys should be trained to be responsible and self-reliant so that they will grow up to be responsible fathers and husbands. They argued,

> *Boys should be responsible and self-reliant so that they are able to provide for their families. These days there are very many men who do not care at all. They are not bothered to provide for the needs of their families. They have neglected their responsibilities and have left their wives to shoulder the whole responsibility of providing for the needs of their children.*

Like the teachers, the parents also emphasized the role of education in empowering girls to lead better lives. The majority said that most parents would want their girls to excel in school so that they will not be employed as household helps, because it is like slavery and is dehumanising. To emphasize this point, one of the mothers interviewed said,

> *I would like my girls to feel that they have the potential and the ability to excel in school and also in life. I encourage them to read hard and to continue with education even up to university. They should know they can excel in any career in life. This is the only way they will lead better lives. The*

husbands who will marry them will respect them because they know they have responsible jobs and they have their own money.

These were very touching comments from both the teachers and the parents, particularly in relation to what they see happening in their own community. It is encouraging to realize that the majority of parents are aware of the importance of education for girls and that they are encouraging girls to continue in school.

Gender differences in personality development

Most respondents were of the opinion that girls have better developed personalities than boys. They said that the girls are more disciplined, respectable, reliable, honest, dependable and trustworthy. One of the focus groups of teachers had this to say:

Girls are more trusted and reliable than the boys. In this school, we normally depend more on girl prefects because they are more reliable.

Much of the credit for better personality development among the girls was given to the mothers. The respondents argued that girls are at home with their mothers most of the time and the mothers spend a lot of time counselling them. In addition, most of the mothers are good role models for their girls. The girls were said to attend church more regularly than the boys, and in church they are taught how to lead good moral lives.

The boys, on the other hand, lack good role models. The majority of the fathers are not often available to mould the character of their sons. A good number drink heavily and smoke in the presence of their sons. Their sons tend to copy their fathers, hence engaging in truancy from a very early age.

The head teachers also complained that many parents allow their sons to roam about and do not insist on their sons engaging in productive work while at home. This freedom makes the boys more vulnerable to bad peer influence, hence their poor personality development. Girls, on the other hand, are expected to be at home most of the time and to engage in productive work. This leaves them with very little time to engage in undesirable behaviours.

The role of the school in influencing personality development

The majority of the groups attributed the good personality development of pupils to well-behaved teachers and head teachers whom the pupils emulate. The participants also emphasized that the teachers provide guidance and counselling for the pupils. This helps the pupils to acquire good morals and character. These responses are significant in that the teachers are viewed by all as the citadel of moral training and character development, providing important role models for pupils. Even the parents appear to delegate this most important

responsibility to the teachers. If it is true that the teacher remains the most important factor for influencing the overall growth and development of pupils, it is no wonder the parents were extremely critical of teachers who are not committed to their work and who drink and smoke in the presence of their pupils.

The school's academic rating

Attempts were made to find out whether there were any differences in the personality development of pupils in schools with good academic performance and those with poor academic performance. Out of the 24 group discussions held in schools with good academic performance, only two focus groups (less than 10 percent) said that the personality development of the pupils was not good. The rest of the focus groups said that the personality development of the pupils was very good.

In the schools with poor academic performance, about 40 percent of the participants said that the personality development of the pupils was poor. The rest said that it was good.

The role of parents in influencing the personality development of their children

According to 14 of the groups, parents take second place in influencing the character and moral development of their children. The majority of the teachers and parents lauded parents who discipline their children well. The participants emphasized that children from homes where there is good discipline often emulate their parents, so they end up developing good character. As mentioned above, mothers were given the highest credit for enhancing the personality development of their children, particularly that of girls.

Other aspects mentioned by a few of the participants included going to church, good teacher-pupil relationships, and guidance and counselling provided by resource persons invited to talk to the pupils by the school.

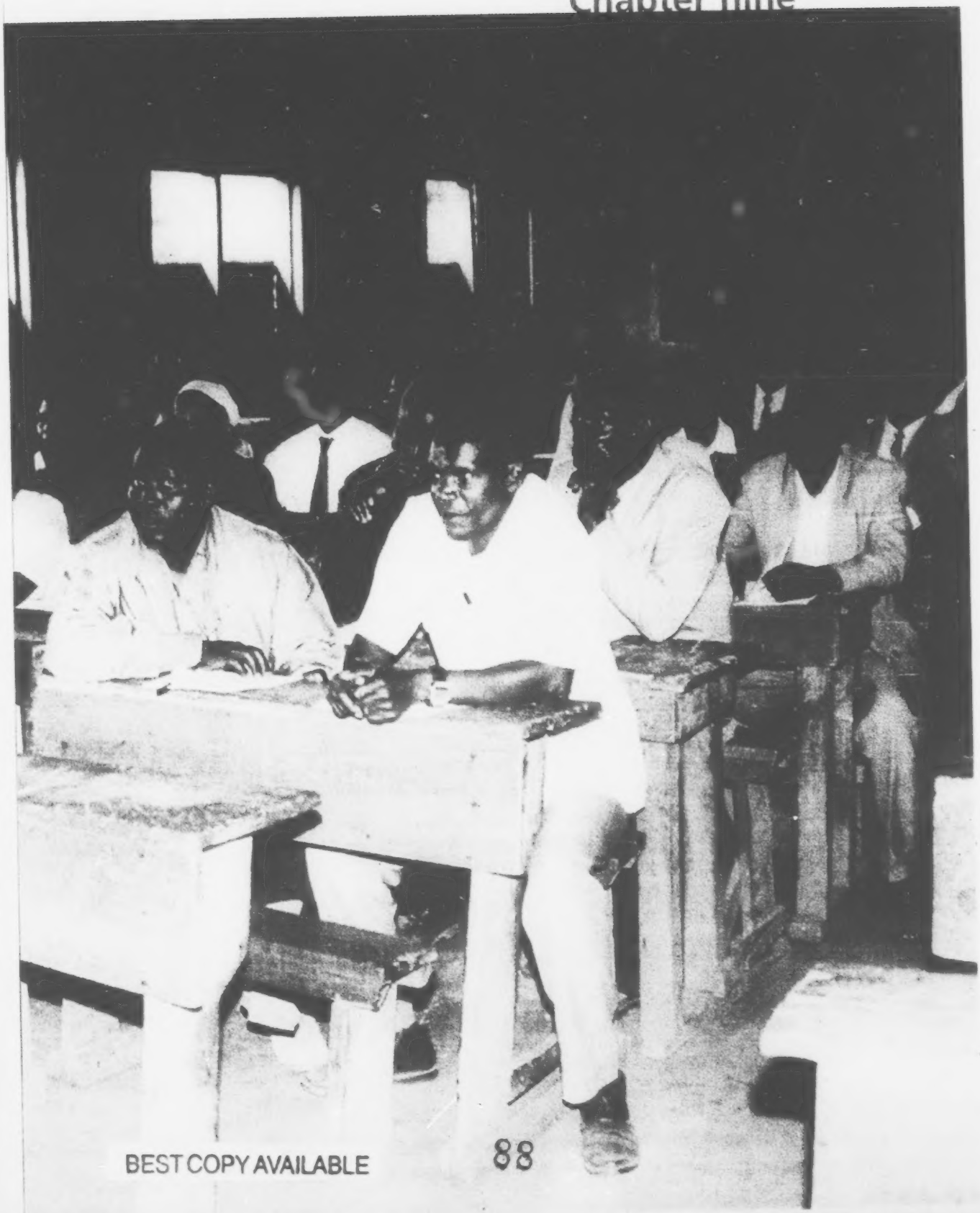
Poor discipline at home

Poor discipline at home was yet another important factor cited for poor personality development. The majority of the participants said that in some homes, the parents provide little moral guidance to their children and do not bother to instil firm discipline in them. They leave the children to do what they want, including roaming about in the markets and shops. This makes the children vulnerable to bad peer influence and bad habits.

The participants also underscored the role of fathers in the moral development of their children. Their failure to provide good role models, guidance and counselling was said to have an adverse effect on the personality development of their children, particularly the boys. The participants were very concerned about

the declining role of fathers in providing moral guidance for their children.

The issue of disciplining children has become a serious problem for most parents today because of the social changes that have taken place in Kenya. Most of the parents have been caught up in the web of cultural transition where there are no longer clearly defined values and moral codes of behaviour that should be instilled in children and young people. Lifestyles have changed tremendously and some of the value systems that governed families in the traditional society are no longer applicable. Parents are today increasingly being left to define their own value systems and the moral codes of behaviour that they think are good for their children. This is a difficult task. In addition, different families end up emphasizing different values and moral codes of behaviour, a practice that tends to cause confusion for their children when they socialize with their peers.



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Summary, conclusions and recommendations

Summary

The importance of preschools

From the information collected, it was evident that the preschools play a very important role in:

- ensuring the holistic development of children;
- making children more motivated and enthusiastic about learning;
- preparing young children for formal education;
- encouraging early enrolment for primary school;
- providing custodial care for young children;
- releasing parents to engage in other activities;
- providing employment for teachers and other support staff.

Preschools were also seen as providing opportunities for learning for parents and the community. Through preschools, parents and communities have acquired knowledge and skills about various aspects of early childhood development (ECD), including the following:

- the needs of children and how best to provide for them;
- how children grow and develop;
- the role of caregivers in ensuring holistic development of children;
- the importance of a balanced diet and how to provide it;
- the health care needs of children and families;
- the importance of play for ensuring proper growth, development and learning;
- how to develop toys and other play materials.

The parents underscored the importance of preschools in providing them with opportunities for working together, especially during material development workshops, growth monitoring and promotion (GMP) activities, cooking demonstrations and centre-based feeding programmes.

Through the preschool, teachers have acquired various types of knowledge and skills about early childhood development, including, for example:

- the needs of children and how best to provide for them;
- how children grow and develop;

photo: Workshop to disseminate findings of the Tracer Study in Embu, participants include Education Field Officers, Headteachers, Deputies, committee members of sampled schools, 2000, *photo: Johnson Mwangi*

- child-centred learning methods;
- the importance of play in growth, development and learning;
- how to develop learning and play materials for enhancing children's learning;
- the management and organization of ECD centres;
- skills for self-growth and development;
- community mobilization.

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In Embu, parents play a very significant role in the preschools. Their support includes providing learning and play materials, centre-based feeding programmes, physical facilities and Growth Monitoring and Promotion services. They also pay fees and salaries for teachers.

The primary schools also contribute to preschools, particularly through the support given by the primary school head teachers. This consists mainly of providing such materials as registers, books and chalk; helping in the collection of fees, giving professional guidance to preschool teachers and paying the preschool teachers. The participation of other primary school teachers in the preschools was, however, found to be minimal.

The importance of DICECE training for preschool teachers

The teachers interviewed underscored the importance of training. They said it had helped them to acquire more knowledge and skills, contributing significantly to their personal and professional growth. The teachers said that as a result of the two-year DICECE training:

- They have better understanding of how children grow, develop and learn.
- They are able to handle the learning and teaching process in the ECD centres effectively through the use of child-centred methods.
- They are more confident about and better skilled in providing for the needs of children, mobilizing community activities and support, and understanding the self.
- They have more self-awareness and insight into their own personalities.
- They have acquired more knowledge and skills about managing ECD centres.
- They are able to interact better with preschool children, their own families, parents and the community.
- They have acquired skills in teamwork, which has helped them to initiate

teachers' panels all over the district. These panels have contributed significantly to the personal and professional growth of the preschool teachers.

- They have confidence, high self-esteem and adequate knowledge and skills in ECD, which helps them to act as trainers of other teachers. This ensures the multiplier effect, which is a very important aspect of any training programme.

- They have acquired more knowledge and skills on the betterment of the family, which has helped them to provide better care for their own children and to have better family relationships.

The strengths of the two-year DICECE training

The two-year DICECE training programme cannot be equated with the short courses and the panel system. This is because the two-year training programme has significant benefits that can not be provided by the short courses and panels.

- The teachers emerge from the two-year DICECE programme fully grounded in both the theoretical basis of ECD and its practice. The period of training is long enough, particularly during the six residential sessions, to facilitate learning about ECD theories. During the field experience sessions, which alternate with the residential sessions, the teachers are given opportunities to test the theories they have learnt in order to find out which ones work best within their environments.

- These teachers also have adequate time to learn about other topics that enhance their self-esteem and confidence, including personal growth and development, management, communication, community mobilization and interpersonal relations.

- The teachers emerge from the two-year training as changed individuals. They have high self-esteem and are confident, knowledgeable and good practitioners. As a result, they are able to train others well because they have the confidence to deal with various issues related to ECD and personal growth and development. Consequently, they are able to trigger the multiplier effect.

- The in-service mode used in the DICECE programme ensures that teachers continue working while in training. The employer does not have to look for a replacement and the teacher is guaranteed employment during the training period.

- The two-year certificate ensures that preschool teachers receive training almost equivalent to other courses offered for primary school teachers. This is important for their credibility, recognition, confidence and employment opportunities.

It is important to note the following: even though the teachers who have undergone short courses were found to be providing stimulating learning experiences for young children, they are not at the same level as the teachers who have undergone the two-year DICECE training.

The teachers who have taken the short courses, although good practitioners in the centres, are not fully grounded in issues related to ECD and personal growth and development. They lack an adequate theoretical framework on these issues, particularly those related to ECD. The short course is often too short to allow the trainees to learn about various theories. Most of the time during the short courses is spent on practical issues, including material development and teaching demonstrations. Consequently, these teachers lack sufficient confidence, knowledge and skills to be able to train others on ECD issues. This means that they are unable to trigger the multiplier effect, which the teachers who complete the two-year course do extremely well.

It is, therefore, important to continue training teachers through the two-year DICECE training. The short course should continue to act as a stopgap measure for untrained teachers before they are able to take the two-year training course.

Need for further training for preschool teachers

The majority of the teachers felt that there was a need to develop a career path for preschool teachers after training – a way for them to improve their professional growth. They also said that they required more knowledge and skills related to ECD and family, for example, management, income generation and children with special needs.

Constraints faced by preschool teachers

The main constraints included poor terms and conditions of service and lack of adequate support materials for use in the ECD centres.

Performance of children in primary school

One of the major problems faced in this study was the long time lag since these children were in preschool. Trying to find the impact of the DICECE training programme after six, seven and eight years was extremely difficult because of the many intervening variables that had an impact on the lives of the children during this period.

However, the study showed that the benefits of ECD intervention were significantly related to better academic

performance ($p \leq .005$) in the first years of primary school. It seems to prepare the children better for entrance into the formal educational system. When the ECD intervention was correlated with the academic rating of the school, it was shown to have an even stronger effect. In other words, children who had been cared for by trained preschool teachers and who were enrolled in a school with a good academic rating did significantly better ($p \leq .005$) than children who were cared for by untrained teachers or who were enrolled in a poor school. This effect was found to continue through Std 4.

There were also three crucial factors that the research team identified in the field that could have contributed to the lack of greater differences in academic performance between the two groups of children.

Short courses

When interviewed, the DICECE trainers informed the research team that one of their main activities is conducting short courses for untrained preschool teachers. Prior to 1991, the short courses consisted of one- to two-day workshops for untrained teachers. Starting in 1992, NACECE developed a five-week, systematic short course for untrained teachers. The majority of the untrained teachers in the sample had attended one – and sometimes both – of the two types of courses. This means that they were exposed to ECD approaches even though they had not attended the two-year DICECE training. The children they were caring for would benefit from this exposure.

The multiplier effect

In Embu, the trained teachers are encouraged by the DICECE trainers to assist the untrained teachers within their environment in aspects of ECD. This means, for example, that if there are untrained teachers nearby, the trained teachers spend the afternoons (when children go home) sharing the knowledge and skills they acquired during their DICECE training with their untrained colleagues. They cover various aspects of ECD, including child-centred methods, the importance of play, how to develop and effectively use learning and play materials for enhancing the learning of children, classroom organization and management, lesson planning and schemes. As a result of this exposure, many of the untrained teachers acquire a lot of knowledge and skills in ECD long before they attend the two-year training. This could also minimize the differences between the performance of children cared for by DICECE-trained teachers when compared with those cared for by untrained teachers.

The preschool teachers' panels

The preschool teachers in Embu have well organized panels at the zonal level that act as a training ground for untrained preschool teachers. The trained preschool teachers spearhead the activities of the panels by sharing knowledge and skills in ECD with their

untrained counterparts. Consequently, the untrained teachers acquire a lot of knowledge and skills in ECD. This, too, would benefit the children cared for by untrained teachers.

Conclusions and issues

Importance of preschools

The preschool has emerged as a very important factor in improving child development and the welfare of the family and the community. The gains could even be higher if these issues were addressed more seriously and more systematically within the ECD programme in Kenya.

Importance of training of preschool teachers

The training of preschool teachers has a strong influence on the provision of quality care for young children, the personal growth and development of teachers, and better family and community relationships.

Transition from preschool to primary school

This has emerged as a very serious problem in the schools sampled in this study. The wastage rates are extremely high, especially in Stds 1, 2 and 4. Although the ECD programme, through the DICECE, has made a significant effort to prepare children for formal education through the use of child-centred methods, these gains are diluted by the poor transition from preschool to primary school. From the child-friendly environment of the preschool, the children are suddenly plunged into an unfriendly primary school environment characterized by excessive use of formal teaching methods, lack of learning and play materials, lack of adequate textbooks and harsh discipline. This unfriendly environment has a negative impact on the learning of the pupils, resulting in high wastage in the form of repetition, absenteeism and dropping out.

Linkages between preschools and primary schools

Even though the head teachers of the primary schools show a great deal of interest in the preschools and give them support, the primary school teachers within their compounds rarely interact with the preschool teachers. The majority of the primary school teachers have made little effort to learn from the preschool teachers about child-centred methods, the use of learning and play materials for enhancing the learning of pupils and how best to meet the psycho-social needs of children.

Preschool teachers' panels

The preschool teachers' panels have emerged as an important vehicle for facilitating the sharing of ideas and experiences among the teachers. The interactions in these panels have helped to enhance the professional and personal growth of the preschool teachers.

Academic performance of pupils

Although there were no significant statistical differences between boys and

girls in academic performance, the majority of participants felt that the academic performance of girls was better than that of boys.

Those interviewed said that there were factors other than the ECD experience that significantly contributed to the academic performance of pupils in school. These include the academic rating of the primary school the children were enrolled in after preschool; the managerial skills of head teachers; cooperation between parents, head teachers and the school committee; supplies of textbooks; discipline of the pupils; parental attitudes towards education; and environmental influences.

It was evident that the academic performance of the pupils depended on whether they enrolled in a primary school with good academic performance or one with poor academic performance. In this study, the head teacher emerged as a major factor influencing the academic performance of the school. Where the head teacher had good managerial skills, all the other factors seemed to fall into place. For example, an effective head teacher will be able to forge good cooperation between the committee, the staff and the parents. Through this cooperation he/she is able to get the parents to contribute to the development of the school through the payment of levies and provision of other support. He/she is able to get teachers to be committed to the learning of the pupils. All these contribute to better academic performance in the school.

Personality development of pupils

- The characteristics emphasized by teachers and parents were mainly those that require conformity to rules and obligations, for example, obedience, respect and trustworthiness. While those qualities are important for the proper functioning of society, other qualities – such as creativity, ambition, risk taking, questioning minds and imagination – which would tend to bring about change in the lives of the pupils, their schools, families and society as a whole, would also need to be integrated in the growing individuals.

- These additional qualities are also required to ensure that Kenya achieves its goal of industrialization by the year 2020. What was being emphasized by the participants in this study are those qualities that seem to ensure the maintenance of the status quo and cohesiveness of the society, rather than change and movement towards the future.

- Many of us Kenyans feel that it is time to have changes in our country. These changes can only come about if we emphasize the qualities that will trigger change. The pupils we are focusing on in this study will be the leaders of tomorrow. If the educational system and the family do not emphasize qualities that can bring about change, these pupils will not bring about change when they enter adulthood and take their place as society's leaders.

- Parents, particularly mothers, were said to play a major role in moulding the character of their children, especially girls. They provide moral guidance and counselling and they are also good role models.

- It was felt that the majority of the fathers were not providing adequate moral guidance and that they were not good role models for their sons, which has resulted in most of the boys engaging in truancy very early in life, a factor that has adversely affected their personality development and academic performance.

- The teachers emerged next to the parents in influencing the personality development of the pupils. This is a significant finding – one that teachers should be made aware of so that they intensify their guidance and counselling and they ensure that they are good role models for their pupils.

Recommendations

- Programmes to create awareness and empowerment should be organized for parents and the community. Parents and the community need to be made more aware of the benefits of broadbased education. They should be empowered so that they can control the destiny of their children and change the conditions of the schools in which their children are enrolled.

- Parental educational programmes, outreach to young children through growth monitoring and promotion activities and outreach to primary schools could be strengthened through the organization of clearly defined ECD programmes.

- All the stakeholders in education should, in collaboration, address the issue of transition from preschool to primary school. Further investigation should be done on this issue to establish the specific problems facing students and to find ways of dealing with them. The assessment of the problem of transition should also include the investigation of appropriate materials for learners, teachers and education field officers.

- Teachers' panels (for both preschools and primary schools) should be strengthened and avenues should be investigated for better interactions between these panels because they provide opportunities for further growth and personal development, as well as professional and peer support among the participants.

- The teachers' panels should come together to form a district panel. Such a district panel would provide a wider base for sharing ideas and experiences and would also provide a stronger voice to advocate and lobby for the needs of preschool teachers, particularly their terms and conditions of service.

- The experiences of teachers' panels in Embu DICECE should be disseminated to other districts where such panels do not exist. Both the preschool teachers and the primary school teachers in these districts should be encouraged to form teachers' panels.

- Teachers should continue to be trained under the two-year DICECE training programme because this provides opportunities for teachers to acquire knowledge and skills in ECD and to develop high self-esteem and confidence. As a result, they are able to trigger the 'multiplier' effect.

- DICECE should continue to train teachers through short courses and panels, but the Ministry of Education, Human Resources and Development should consider this as part of the two-year DICECE training. The teachers who undergo the short-course training should be exempted from some of the courses when they join the two-year DICECE course. Their training should, therefore, be shortened by at least one session.

- There should be other systematic courses after the two-year DICECE training to provide a career path ensuring the professional mobility of preschool teachers. Short courses should also be mounted to equip the teachers with knowledge and skills in better methods of working with community groups. Such training would have a strong impact on the lives of children, teachers, parents and the local community.
  In-service courses and workshops should be organized for primary school and preschool teachers, emphasizing children's needs and developmental characteristics, learner-centred learning methods, resource development and utilization, and involvement of parents in education programmes.

- Capacity building programmes should be organized for school committees, head teachers and school managers to improve the management of education programmes.

- Initiation of income-generating activities/projects should be addressed in order to improve the financial status of schools. This would increase the ability of schools to provide adequate textbooks and other learning resources and to improve physical facilities.

- Close interactions and linkages should be created between the learning institutions, teachers, parents and family-support groups in order to intensify sharing of experiences and information, child-support programmes, communication, guidance and counselling, self-awareness and self-development.

- Linkages should be strengthened between educational agencies and

institutions, such as religious education secretariats, training colleges, community development committees, women's and youth groups and other community-based organizations. Through such linkages, issues such as socialization, community values and improvement of educational programmes could be discussed, and the roles of the different agencies could be clarified and strengthened.

Further research needs to be undertaken in the following areas

- The characteristics of the few children who are able to go through the primary school cycle without repeating classes and who also perform well academically should be investigated. Why have they been able to succeed where so many others fail?

- The role of fathers in their children's academic performance and repetition in school needs to be clarified, and then steps need to be taken to strengthen the father's role.

- Factors that characterize schools with good academic performance should be defined and enhanced.

- An intensive follow-up of all children, starting in the preschool and continuing through their first four years in primary school should be instituted.

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Appendix

Research instruments

Seven approaches were used to collect information. These included interview schedules, observation schedules, questionnaires or guided questions. The following is a brief description of each of the data sets collected for the study.

Data on children

Schedule 1

Using a single schedule for each child, targeted background and current information about pupils was collected. This information covered the age, gender, family and socio-economic background and the general profile of each pupil. Schedule 1 also included information on absenteeism, academic performance, special abilities, physical presentation and the general personality attributes of the child interviewed.

Data on schools

Schedule 2

Using a single schedule for each school, information on the school's history, current population figures and the composition per class by gender was collected. Information on available physical facilities and a detailed breakdown of the distribution of textbooks in upper and lower classes was also collected for schedule 2.

Rating of pupils' characteristics

Schedule 3

Teachers were asked to fill in a questionnaire on the pupils they were

currently teaching. They rated the students on a scale from 1 to 5 on their daily physical presentation and personality.

Pupil observation/interview schedule

Schedule 4

When the children were interviewed, their mannerisms, temperament, self-presentation, physical presentation and self-concept were assessed, along with a general personality overview. Employment preferences, ideal marital status and highest ambition were also assessed.

Focus group discussions for preschool teachers

Schedule 5

Information on the importance and impact of the DICECE training was collected from the preschool teachers, along with information on achievements and problems encountered by the teachers in their work. The teachers also enumerated the skills, knowledge and attitudes acquired from the DICECE training.

Other focus group discussions

Schedule 6

Focus group discussions were held for parents and teachers in each of the schools. Schedule 6 was also used to interview head teachers. Information was collected on the expectations that parents, teachers and head teachers had about the qualities that the pupils should have acquired by the time they leave school. The different groups expressed their feelings about their schools, along with suggestions for improvements. They gave a commentary on the schools' academic performance, extra-curricula activities, repetition rates, absenteeism, dropout rates and the students' personality development. They also commented on gender differences in pupils in each of these areas. The groups further enumerated the benefits of having a preschool and outlined their involvement in its activities. The DICECE trainers highlighted the impact of the training on the Embu community.

Preschool teachers attending the focus group discussions

Schedule 7

Information on the profiles of the preschool teachers was collected. The teachers described their families and the expectations they have about their own children. They also mentioned their expectations about their pupils.

Further information

Information about the Foundation, its grantmaking policy, and its work, as well as a list of publications, are available from the Foundation through the contact details given on the back cover.

Titles in the Following Reading Series

A new door opened: a tracer study of the Teenage Mothers Project, Jamaica,
Roli Degazon-Johnson, 2001, Practice & Reflections No. 13

In the web of cultural transition: a tracer study of children in Embu District, Kenya,
Ann Njenga & Margaret Kabiru, 2001, Practice & Reflections No 14

The challenges of change: a tracer study of San Preschool children in Botswana,
Willemien le Roux, forthcoming, 2001

To handle life's challenges: a tracer study of an Adolescent Development Programme in Trinidad,
Jean Griffith, forthcoming

Still going strong: a tracer study of the Community Mothers Programme, Ireland,
Brenda Molloy, forthcoming

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Parents in the Embu District of Kenya feel that they are caught in a web of cultural transition. Lifestyles have changed and there are no longer clearly defined values and moral codes of behaviour that should be instilled in children and young people.

This is just one of the findings of this study that tracked nearly one thousand children from their preschools through to upper primary and the first form of secondary school. But only six percent of the pupils had reached their expected class – the remainder had repeated one or more classes, had transferred to other schools, or had dropped out of school entirely.

Interviews with children, parents, teachers, head teachers and education officials reveal a host of factors within the schools, the communities and the general environment that affect children's performance. One of these is the training status of the preschool teacher – if she is trained, the children make an easier transition into primary school; and if they attend a school with good academic performance, they are more likely to perform at a higher level than children who had untrained preschool teachers.

Preschool teacher training in the District is undertaken as part of a national programme, and the study gives many pointers to good practice that could enhance this training, and thus have a positive effect on young children throughout the country. At the same time, the analysis of comments and views of parents, teachers and community members give pointers to ways of improving performance in the primary school system.

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